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## THE LABOR QUESTION, AND HOSPITALS FOR INCURABLES.\*

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The general principles of management, [of the insane,] as well as the particular ways in which they have been carried out, have been too often described in these reports, and too carefully observed by yourselves, to require any special notice now. I would only say that the experience of every year has confirmed my belief in their essential correctness; and though I have sought for little more than that kind of improvement which ought to follow a considerable use and custom, yet I cannot charge myself with having failed, in any considerable degree, to profit by the suggestions of others. Some things respecting the insane and institutions for the insane, I consider as established. A half century of trial and observation has not been entirely barren of well-settled results. It has been one of the felicities of my lot that, during my eighteen years of service here, no scheme of management, no plan or experiment for accomplishing this or that object, has been urged upon me, or even hinted at, by those who had the power or right so to do. Being perfectly free to choose, to admit or reject, to try or leave untried, whatever promised any

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good to the cause, I have thus been able to arrive at results respecting them, unbiassed, certainly, by fear or favor. Independent action and free inquiry do not necessarily secure one from mistake, but it is equally true, that, without them, mistakes or something worse will frequently occur.

Methods of medication, methods of management, methods of support, have always been fruitful subjects of speculation and experiment, and many a man has flattered himself that he has triumphantly overcome some practical difficulty, given a death-blow to some time-honored custom, or discovered some royal road to the great end and aim of his undertaking. Here, as everywhere else, great novelties have sometimes been mistaken for great truths; and the cold, sceptical inquirer, unwilling to let go too readily an old conclusion merely because a new one claims its place, is regarded as slow and behind the times. Of course there can be no fear that the truth will not finally prevail, but it is desirable that it should prevail speedily, and that error, when once fairly killed, should stay killed, instead of rising up like a troubled ghost, from time to time, and declaring that it is not killed, justly. In the mean time, persistent experiment and patient investigation will have to continue their work which, though slow, will surely end in good results. Those incidents of management which spring from the habitual endeavor to improve, I have not regarded as always fit subjects for public notice, but to one of them, for a special reason, I would solicit your attention now.

The value of labor, both as a remedial and a financial measure, in the care of the insane, has been so strongly insisted on of late as to have become a controlling element in the solution of a most difficult practical question.

Though the general principle has been recognized, and applied more or less in all modern establishments, yet it is earnestly contended that it has never been developed to its fullest extent. With no idea of proving a theory, but solely for the purpose of making the most of a good thing, I have endeavored, by means of extra attendance, to extend the use of labor, for a year or two past, and though the result can scarcely be compared with that exhibited by some other institutions, yet it is none the less valuable as a fact in connection with the general question. In a hospital like this, receiving all sorts and conditions of men, from the town-pauper to the millionaire, many of them unaccustomed to labor, and many more whose mental affection is coupled with serious bodily ailments, such as epilepsy, paralysis, extreme depression of the vital powers, not much labor could be reasonably expected. A steady systematic management, however, which puts every one to work who is able and willing, and keeps them employed for the longest period compatible with their own welfare, may, even under such circumstances, lead to significant results. The institution has always embraced among its inmates a small number who, under the care of the farmer and gardener, go out regularly to labor on the land. Their working day, at the longest, never exceeds eight hours. In the winter, of course, out-of-door work is often prevented altogether, though, at such times, a little employment is usually found under cover. These persons, for the most part, are incurable, but have the strength and disposition to engage in the coarser labors of husbandry, and require comparatively little oversight. They have averaged, one year with another, about one-fifth of the whole number of male patients. In every hospital there are also some

who might possibly work, but who, for one reason or another, do not join the regular working party. Some have hardly strength enough to remain out so long; some are so sluggish and abstracted as to require incessant direction and encouragement; some are unduly excited by the scenes of out-door labor when protracted beyond a very limited period; some are so determined on eloping that they cannot be trusted without unusual precautions. For the purpose of giving all such an opportunity to work, we have had, the last two years, one or two extra attendants who have been employed chiefly in working with them out of doors. The weather, of course, would keep this class of patients within in a greater degree than it would the former; and, at all times, their labor would be less remunerative. Besides these, there are always some who prefer to work within doors, and they are employed, some more and some less, steadily, in the ordinary domestic work. The labor, of whatever kind, is always voluntary, but in cases where the welfare of the patient strongly required it, we have used all our powers of persuasion, when necessary, to overcome that inertness which is so characteristic of a large proportion of the insane. An accurate account has been kept of all the time thus spent since the first of April, 1864, and here is the result. During those one and twenty months, forty-two different male patients have been employed in labor, amounting to about three-sevenths of the whole number under care, and to about four-sevenths of such as had ever been accustomed to manual labor. The time thus occupied amounts, in the aggregate, to 6382 working days.

On the female side of the house, no account has been kept of the labor, but it has been comparatively small.

A large number have never learned to knit or sew; and the domestic work connected with the rooms and halls they occupy—for it has not been the custom to employ them at all, in the centre-house—can furnish little occupation for so many persons. Unfortunately, there is no kind of labor so well adapted to the taste, habits, and capacity, of females, as farm-labor is to those of the other sex. In large institutions, a sufficient number can be found, capable, with some kind of steadiness, to perform the labor of the kitchen and laundry. But in so small an establishment as this, such service, objectionable at best, is not sufficiently reliable to be used at all. It must be considered, however, that many female patients, especially those from the more affluent classes, engage in the usual feminine occupations for the benefit of themselves or their families, so that, in fact, the time spent in useful employment is not so much less, on the female side, as might, at first sight, be supposed, from the little there is to show for it.

This statement of the results of our use of our labor possesses an interest over and above that derived from the immediate effect, because it bears upon a question now much agitated, both in this country and abroad. You are aware that in the early stage of this benevolent enterprise of establishing hospitals for the insane, one of the principal objects proposed by it was the proper care and custody of the old incurable cases. It was their sufferings as exhibited in the jails and poor-houses of the country, which, some five and thirty years ago, led Horace Mann and a few others to begin that movement, the first fruits of which were the hospital at Worcester. They labored, as they supposed, for the poor, the neglected, the friendless, the hopeless, not for the wealthy

and curable, who might be safely left to the ministry of their friends. For a time it seemed as if the precise object of their labors had been accomplished and placed beyond the reach of any change of fortune. The jails and poor-houses were emptied of these unfortunates, and an incalculable amount of relief from the last extremity of human wretchedness was effected. A more curious change of purpose has seldom been witnessed than that which has been induced on this subject by the very development of the original enterprise itself. For whereas the object at first was to place all these persons in the hospitals, the question that agitates the philanthropists of our day is, how best to get them out of the hospital. In the course of a few years, the hospital came to be generally regarded as the only suitable instrumentality in the care and treatment of the insane, and consequently, their capacity of accommodation was reached long before the wants of the community were supplied. And thus we have this remarkable inconsistency,—that while hospitals are regarded by the sensible and benevolent as the most suitable place for the insane, and their claims on the public bounty recognized by regular legislative appropriations, there is not a community among us that thus provides for even one-half of its insane, unless it may be Massachusetts. In this condition of things, the conclusion has been generally adopted, that if any are to be excluded from the hospital for lack of room, it should be those to whom it would be a permanent home rather than those for whom a few months' residence would lead to recovery or considerable improvement. The almost universal practice of our State hospitals is, therefore, to discharge their patients after they have clearly become incurable, in order to make room

for those recently attacked. The patients thus discharged, after exhausting, perhaps, the patience and the bounty of their friends, arrive, sooner or later, at a final home in the poor-house or jail, and thus steadily increase that mass of suffering humanity whose dimensions seem to defy all the resources of public benevolence. To furnish hospital accommodation for all is what no community here, or abroad, has yet done, and it is less likely than ever to be done in this country while staggering under the burdens which the great national contest has heaped upon us. Are they then to be left to a kind of custody and care which deprives them of many a comfort, and inflicts upon them many a suffering, without the slightest attempt to better their condition? This is the question which is now beginning to be considered as scarcely second in importance to that which found its practical solution in the first establishment of hospitals for the helpless insane.

As one method of solving this question, it has been proposed to provide for the incurable insane, in a class of establishments more cheaply built and more cheaply managed than the hospital proper. For the idea is, that the mere custody of the insane, even supposing it to be humane and judicious, requires a much smaller outlay than that which is subsidiary to the higher object of recovery and restoration. The idea is specious and not without some foundation. The outlay for drugs and medicines must, certainly, be less; riding, driving, and long walks abroad, pictures, billiard-tables and bowling alleys, may be dispensed with, but the saving thus made will be but a small percentage of the whole cost.] [On a close examination, it will appear, I think, that the difference which can be made in the expense of the instrumentalities for obtaining the

two different objects—the cure, and proper custody of the insane—is but trifling. The essential requisites must be the same in both. To maintain the proper degree of cleanliness, both of the patients and of the house, must cost about alike in both, and the same may be said of the warming and ventilation. The highest hygienic condition of the patients will admit of no difference in these important points, and the public sentiment would not, and should not, tolerate any. A proper regard for safety and good order would forbid much, if any, reduction in the amount of attendance, which is already too low in most of our State hospitals, if we regard the rule on this subject put forth, a few years since, by the ASSOCIATION OF SUPERINTENDENTS. Officers, intelligent, discreet and skilful, would be no less requisite, to understand and meet the varying humors of the disordered mind, to give an elevated tone to the service, and thus prevent improper practices and a general style of management not conducive to the highest welfare of the patient. The buildings could not be much less costly than those now in use, in which many an important consideration has been sacrificed to economy, and the ultimate cost less thought of than the present.

The force of these objections must have been felt, in some degree, at least, for in all the plans for separate establishments, recently proposed, it is designed to make the labor of the patients defray, wholly or partly, the cost of their support. This idea of making the patients support themselves by their labor, is not, however, a new one. As disease of the mind does not necessarily impair the bodily health, the belief has been readily entertained that the insane can and ought to work, very nearly, if not quite, as long and as hard as the sane.

The fact here stated is beyond a question, but the fallacy of the reasoning consists in regarding a few instances as proof of a general truth; for it is also a fact that, for the most part, the bodily condition of the insane is much below the normal standard. Taking all the circumstances into the account, it will be found, I apprehend, that their labor cannot be so remunerative as is here supposed.

In the first place, insanity is accompanied by physical enervation in some form or other. Mental excitement may mask it for a season, and even deceive one with the look of unusual vigor, but, sooner or later, it will be obvious enough to the practised eye. Now, setting aside the epileptic and the paralytic—and they constitute a large portion of the incurably insane—who are incapacitated for anything deserving the name of labor, we shall find many other conditions, bodily and mental, having a similar effect, though in a less degree. There are some whose physical condition is marked by decay and debility. All the spring and elasticity of the vital powers have departed, and they have neither the heart nor the power to work to any purpose. Some are in the last stage of dementia, signalized by loss of memory, of discretion, of knowledge, and of the power of attention. Tools may be placed in their hands, and they may, for a moment, under the close supervision of an attendant, go through certain forms of labor, but they accomplish little or nothing. Again, many of those who do the most, at times, are liable to seasons of excitement, which, for days or weeks together, may deprive them of all power of application. The man who is calm to-day, carefully and thoughtfully pursuing his task, may be restless, if not noisy and boisterous, to-morrow, ready to work, per-

haps, but spoiling whatever he touches. And thus it is that the number of those who get out to their work, and pursue it efficiently, day after day, must necessarily be not a very large proportion of the whole.

In connection with the financial result, it is also to be considered that the labor of the insane is performed under disadvantages that seriously affect its profits. Very many are capable of only the simplest kind of labor, and as this is agricultural, for the most part, it is almost entirely interrupted during the winter. Like all simple labor, too, it is the least remunerative. True, some crafts are usually represented among the patients, but to pursue them profitably amid the circumstances of a hospital, is clearly impossible. Here and there a patient not much diseased, and, by nature, somewhat independent of circumstances, will, in spite of all difficulties, accomplish something worth having, in his particular calling. With a few tools, one will do good service by making over mattresses; another, by repairing shoes; another, by making clothing; another, by mending the furniture. All these things are serviceable to the institution, and so far help to pay its way, but to an extent scarcely perceptible in the annual aggregate of expenses. To be profitable, skilled labor must be pursued in suitable shops furnished with all the requisite tools, and aided by every advantage which the progress of improvement has procured. The kind of work must be exactly adapted to the wants of the market, and the easiest and freest intercourse must exist between employers and employed. It being impossible, therefore, for every patient to work at his own special craft, the practice is, where skilled labor is used, to select but a few crafts on which to employ the patients, the greater

part of whom must necessarily be learners in the art to which they are put. This implies an instructor whose wages will absorb a large share of the earnings, and it also implies, to some extent, the spoiling of materials and the breaking of tools.

It must be considered that such a kind of labor lacks that stimulus which proceeds from personal responsibility and a pecuniary interest. This alone may make all the difference between a gaining and a losing operation. When a man does precisely what he is told to do,—no more and no less—with no care for the future, and no interest in the result, working, in fact, like a mere automaton, he obtains a return for his labors, very different from that obtained by him who perfectly understands what he is about, and is actuated by the hope of gain, or some other desirable end beyond that of mere occupation. This defect constitutes one of the great drawbacks on the efficiency of the labor of the insane, and no device of ingenuity can prevent it. In some degree the difficulty is met, in England, by giving beer and tobacco; and though this measure may procure a greater amount of work, yet it is but an indifferent substitute for the activity, intelligence and hope of a sane mind.

The force of these considerations has been abundantly shown, I think, by actual experiment in the present institutions. Nearly thirty years ago, Dr. Woodward prepared a work-shop in the Worcester hospital for shoe-making, regarding that craft as more likely than any other to be remunerative, and though the account showed a small profit, it was quite too small to be regarded as a financial success. About the same time, Dr. Bell, of the McLean Asylum, provided similar arrangements for making candle-boxes, with much the same result. Two

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or three years ago, Dr. Prince, of the Northampton hospital, desirous of giving the experiment the fairest possible trial, pitched upon basket-making as that which furnished, in the highest degree, the elements of success. The materials were cheap, the tools few and simple, the art was easily learned, and required but little strain on either the mental or bodily powers. Even under these favorable circumstances, the result was no better. "Pecuniarily," says the Report, "it was a total failure. There was no money made, but there was not much lost." There were other consequences of this experiment—a fair specimen, no doubt, of what may be reasonably expected from the employment of the insane in skilled labor—that ought not to be left out of the account. An overseer was discharged for abusing a patient, one patient eloped, and one threatened another with a knife.

It is supposed, I know, that hospitals for incurables, in which employment of the patients shall be made a ruling purpose, will possess great advantages over establishments designed for all classes of patients. In the latter, the predominant object is the recovery of the disordered mind; and in promoting this object, the time and attention of the officers are too much occupied to allow them to superintend workshops and look after the minute details of special employments. The argument is specious, but will not bear examination. Labor is universally recognized as an indispensable means for promoting recovery, and is actually used, more or less, in the present institutions; and not merely for this purpose, but for that of furnishing occupation to the incurables. The system has only to be extended, as it easily may, to embrace within its operation every suitable patient. It is the proper selection of the crafts, the aid of judicious

overseers, facilities for working, and the governing spirit, that determine the financial result, rather than the number of persons employed. I see no reason to believe that these conditions are more likely to be found in hospitals devoted exclusively to incurables, than in those not restricted to any particular phase of the disease. On the contrary, the recent cases belonging to the latter, will render the labor so much the more remunerative, because of their superior intelligence and docility.

Another reason offered for the establishment of hospitals for the incurable insane, in which labor is to be the controlling element, viz., that they may be put into the charge of fresh men uncommitted by previous experience to any set of notions on this subject, and chosen for the purpose of carrying into execution a new principle, seems to present but a small foundation for so much promise. The experiments just referred to were tried by men who had every motive for exercising the same intelligence, tact and perseverance which they evinced in every other department of their calling. Better men than these could hardly be expected. On the other hand, I can conceive that if a man is entrusted with the charge of a hospital for the insane, for the express purpose of obtaining the utmost amount of labor from the patients, and that his continuance in office will depend on the result of his endeavors, he may be led into practices inconsistent with those sentiments of humanity and gentleness which should preside over the management of the insane. Patients might be sent out to work, who, by reason either of a low physical condition, or of great nervous susceptibility, had better be allowed to rest; while the sluggish or indolent, who never voluntarily engage in work, might be supposed to require

incentives somewhat stronger than moral suasion. These things would not happen in every instance, probably, but it would be strange if they should not occasionally happen.

The economical results of labor performed under circumstances somewhat similar, have been well exhibited in our State penitentiaries, with which, in this respect, our hospitals for the insane may be very properly compared. It appears that in the State penitentiary of Massachusetts at Charlestown, the proceeds of labor, during the last six years, have not defrayed the expenses of the establishment. In every thing likely to affect the result, except, perhaps, the cost of attendance, the penitentiary has the advantage over the hospital; for the working-day is longer, and is uninterrupted by weather, the labor requires more or less skill, no workers are exempted by moral and few by physical, disability, they are under the direction of contractors, whose interest is promoted by obtaining the greatest possible result, their diet is simple, the cost of sickness is little, and that of recreation, nothing. True, in some other States, the results of penitentiary labor, during the same period, were better,—the proceeds actually defraying the cost of maintenance. Still, they confirm the principle that to have labor remunerating in the highest degree, it must be voluntarily and cheerfully performed.

Perhaps, however, it is not expected that hospitals for the insane can be made self-supporting, even by the most judicious management, but only that their expenses may be so much reduced as to render the burden upon the taxpayers comparatively light. Now, the experiments above referred to, furnish, certainly, approximations to the best possible results, and so considered, may

be taken as a suitable standard of comparison. Showing as they do that the expenses of the hospital are not materially reduced by the labor of the patients, we are obliged to admit that the latter might be made even doubly valuable without much affecting the practical question at issue. It must be recollected, too, that half of the inmates are women, of whom the greater part who work at all are capable of only the coarsest forms of needle-work, which, even when performed by the sane under the pressure of extreme necessity, will scarcely procure the means of living in the humblest way.

I am inclined to think that the notion, so prevalent among us of late, that we have scarcely taken the first steps towards developing the capacity of the insane for labor, is founded, in a great degree, upon what is supposed to be the experience of the English hospitals. It is not strange that an American, after observing the results of labor there, should inquire why the same system, with the same results, is not practicable here. When he sees that apparently every patient, male and female, except the few prostrated by disease, is doing something, and beholds the piles of articles manufactured by them, he readily concludes that we have signally failed to develop an important element of material support. But before adopting this example as the rightful standard for us, it will be well to inquire if this difference may not be attributed to peculiar circumstances rather than any want of skill on our part. A careful examination of all the elements of the case would lead us, I think, to this conclusion, but the occasion will permit only the most cursory notice of the principal.

In the first place, we find in the English establishments a much smaller number of the physically infirm and dis-

eased. Secondly—as an effect of climate, probably—we find a much smaller amount of excitement, both of the paroxysmal kind and of those inferior grades which, while they do not deprive a patient of all self-control, render him too restless and fitful to labor to much purpose. But the principal source of this diversity is to be found in the very different social status of the patients. The habitual obedience to the powers that be, and the unceasing deference to superiors which is an all-pervading trait of the English in the humbler walks of life, do not desert them when they become insane; and, under the influence of these qualities, they are as ready to follow the rule of labor as any other rule. They are as little disposed to disregard the orders of the officers of the Asylum, as they would be to contemn the squire or the parson. And thus, though no compulsion may be used, the patient does as he is bid, without question or hesitation, as a matter of course. In our establishments it is all very different. The patient, though bred to work, is not slow to tell us that he did not come to the hospital to work; or that if he can be paid for his labor, he is willing to take hold, but not otherwise. The effect of this spirit is especially manifested in that class of patients who are too indolent and listless to work without some stronger provocative than the mere love of it can furnish. Many a patient who would be greatly improved by occupation, obstinately persists in moping about in utter indolance and vacuity; and in such cases we may well deplore the necessity of abstaining from the only effectual means for changing their disposition. In the matter of weather too, the English hospitals have a decided advantage over ours, for the purposes of labor. Neither the long winters of the North, nor the hot summers of the South, keep

their patients a considerable part of the time within doors; the comparatively equable temperature presenting conditions eminently favorable for out-side work. They also possess the advantage of having a larger proportion of artisans, and a smaller one of that nondescript class so abundant here, of helpless, shiftless beings, mere hangers on the skirts of society, who scarcely earned a living when sane. And yet, under all these favorable circumstances, in connection with a style of living that would hardly be deemed generous enough for even a hospital of incurables here, the English establishments are very far from being self-supporting. Indeed, the cost of maintenance is but little less than it was here before the war. So that, with all their show of labor, they furnish no encouragement to believe, that under the best auspices, our hospitals for incurables could be made self-sustaining. If any doubt on this point remain, it would be removed by the reports of the English hospitals which give the statistics of their labor. From these it appears that while a very large proportion of the patients are engaged on the farm or garden, in cleaning house, or picking oakum, a very small number only are engaged in skilled labor. The simple fact that the averaged cost of maintenance is, in many, above, and, in few, below, the average wages of the farm laborer, proves conclusively that the employments of the patients, salutary as they are, no doubt, and creditable as they certainly are to the officers, are not to be compared, in point of profit, to those of persons sound in mind and body.

Let it not be supposed, however, by these remarks, that I would oppose the separation of the incurables from the curables, considered strictly as a measure of classification. Intimate association with epileptics, para-

ties, and the grossly demented, is disagreeable to most curable patients, and decidedly prejudicial to their welfare, but in establishments designed for 200 cases, which is not far from the proper capacity, such association cannot be entirely prevented by the usual means of classification. But if such a separation be made solely for economical purposes, I need only say, that this object will be, either completely defeated or obtained at the expense of humanity and propriety.

Another method of providing for the incurable insane, though of some antiquity in Europe, has not, till quite recently, been urged for general acceptance, either there or in America. Briefly indicated, it is that of placing the patients, by ones, twos or threes, in the houses of poor agricultural laborers, with whom they live, work and associate as members of a common family. From time immemorial, insane persons have been thus disposed of in Belgium, and, of late years, they have always been several hundreds in number. They are taken into their cottages by the peasantry, board, lodge, and work with their hosts, who receive a fixed price, and are responsible, as far as they can be, for the welfare of their charge. The price is low, in consequence, it would seem, of the fare being simple, and the work of the patients somewhat profitable. Apparently, but little restraint or seclusion is used, the more turbulent cases being disposed of, probably, in some other way. Some of the arrangements are regulated by law, and the Government exercises a little supervision.

This free-air system, as it is called, it is proposed to introduce here. It works well in Belgium, it is said, and why should it not here? Why should not the immense crowds of the incurably insane, perplexing as

they are to the philanthropist, and appalling to the tax-payer, be as humanely and cheaply maintained as it is alleged they are at Gheel? Without examining the matters of fact implied in these questions, for they are not entirely undisputed, we are inclined to believe that this method of disposing of the insane would be found impracticable in this country, in consequence of the very different circumstances under which it would have to be tried. For a thousand years or more, Gheel has been resorted to for the relief of insanity, by obtaining the intercession of a certain saint who was supposed to be deeply interested in the insane, and whose aid was invoked by prayers and ceremonies. For lack of other accommodation, the patients were necessarily entertained in the cottages of the peasantry, with whom they lived on familiar terms. A connection thus formed, became, in time, an established institution, improved and cherished by a long course of experience well calculated to create a traditionary knowledge of insanity and the insane, and an active interest in their concerns. In receiving the insane into his family, the peasant did just what his fathers, for many generations, had done before him. From early youth he had looked forward to this as a means of living. He knew what to expect, and was prepared for every emergency. His boarders were little disposed to leave him, because, to their dull and passive temper, their own home had no stronger attractions than his. Their fare was simple, embracing nothing which they had not raised themselves on their own ground, and thus a very moderate charge would cover the excess of their cost over the returns of their labor. Here, on the contrary, a community of some hundred families has got to be created under very peculiar circum-

stances. They must live near one another; they must be engaged chiefly in agricultural employments; they must be content with a small property and with no ambition to make it larger, while the habits of our time would require a dietary which, to a Belgian peasant, sane or insane, would seem to be the height of luxury. Who, with the slightest knowledge of the ways and habits, the feelings and expectations of our people, can suppose that the formation of such a community would be practicable anywhere in this country? Even if the cottages were built and occupied by tenants ready to receive the patients, still, an essential element of success would be wanting. There would be no knowledge of insanity as a disease, no skill or tact in management, no forecast and anticipation of contingencies, for these come only from long, familiar intercourse with the insane. What other result could be expected but timidity, awkwardness, harsh, if not inhuman, practices? True, this knowledge and skill might be learned in time, but what would become of the experiment in the mean while? The public will be scarcely willing, in the face of constant failure, to wait two or three generations before it relinquishes all faith in the undertaking. Elopements, too, would be numerous under the most careful management, so numerous, if we do not utterly mistake the character and ways of the insane, as to defeat the very object itself. The cottage of the farmer presents no attraction stronger than that which the patient is in the habit of regarding as his own. One has schemes of business which require his presence somewhere else. Another is quite sure that if he is to work at all, he had better work for himself. Another is impelled by that roaming propensity so common with the

insane; and thus, for one reason or another, most of them are bent on leaving the place of their detention. Even at Gheel, some years ago, an observer spoke of seeing some going about in chains, to prevent them from eloping. Such restraint is said to be no longer used, but I am not aware what substitute has been adopted.

Happily, we are not left altogether without witness respecting the operation of this system, under circumstances not essentially different, in this country. In a greater or less degree, it has always prevailed in New-England, and perhaps in other States. The poor-house of the town is usually provided with land, the cultivation of which, by the inmates, helps to defray the expenses, and in winter some form of in-door employment is furnished. The insane paupers, when able and willing, are put to work with the others, and it is for the keeper's interest, in some way or other, to surmount their objections. But in fact not much work is accomplished; and, worse than that, to prevent those from leaving the premises who are disposed to roam, they are chained to the floor, or shut up in narrow rooms, and this leads to filth and cruelty. And yet the keepers of the poor-houses belong to the same class of men as those who would be likely to be employed in the free-air system. In both this and the poor-house system, there would exist the same motives for kindness, and there would be an equal chance for intelligent and skilful management. In these respects, indeed, the advantage would seem to be on the side of the poor-house keeper, for his character may be well-known to the appointing power, and the perquisites of the place would ensure a better class of applicants. The fact that a selection thus made is sometimes followed by the best results, is but a poor argument in favor of

the free-air system. That more care and vigilance would secure a still larger proportion of the right kind of men is not enough. The success of the new system requires that, with an occasional exception, perhaps, all the care-takers should be kind, gentle yet firm, watchful and judicious. A sounder argument is, that if the poor-house management, with all its better opportunities, so often fails, a still worse result would follow under a system essentially like it, but less fortunately circumstanced.

It is admitted, I believe, that, even under the most favorable circumstances, a considerable part of the incurable insane must still be provided for in hospitals expressly designed for the insane, their form of disease requiring such restraint as can be judiciously applied only in such institutions. But it is not generally understood how few comparatively would be left for the open air system, after those are withdrawn who are infirm, or homicidal, or suicidal, or bent on elopement, or subject to paroxysms of violence. It is alleged, I know, that the number of such would be much reduced under the operation of this system. That an occasional instance of improvement might be witnessed by the change from the extreme of confinement to the extreme of freedom, would be in accordance with our experience of the effects of change upon the insane. But with that exception, the prominent traits of the disease, inasmuch as they are mostly produced independent of any accidents of management, would not be so easily removed. If, then, the substitutes hitherto offered for the present establishments are either impracticable or equally expensive, there remains the only alternative, either to wait in the vague hope that some feasible plan may be devised, in one way or other, for meeting the present difficulty, or to provide for

the care of the insane in hospitals furnished with all the appliances for promoting their comfort, which have been created in the progress of improvement.

Thus far, it will be observed, I have treated it as a foregone conclusion, that hospital accommodation for all the incurably insane is what our people cannot or will not furnish; but, after all, I am not sure that it would be so far beyond their means as to be utterly impracticable. It is with communities as it is with individuals,—what they ardently desire, and feel the need of by practical experience of its want, that they generally contrive to have. I have had abundant opportunity to observe the operation of this principle in our own State, since the opening of this institution. Towns which long delayed to send us their pauper insane, have become the least willing to keep them at home. Having got fairly relieved of the responsibility of caring for their troublesome wards, they have come to consider it a hardship to be obliged to resume it. Feeling so keenly as we have the necessity of more room for recent cases, we have often signified our wish to be relieved of certain incurables, but, very seldom has the request been complied with. I am inclined to think that were we able to receive every case as fast as offered, every insane pauper in the State would be under our roof, within a dozen years, excepting, perhaps, the few who are well enough wherever they are kindly treated, and those of Providence and Newport, which possess unusual facilities for taking care of their pauper insane. And the statistics of the case furnish unquestionable proof that the burden would not be very heavy. In 1850, Mr. Thomas R. Hazard, under the direction of the General Assembly, visited every town in the State, in order to ascertain the num-

ber of their insane, and found 143 supported at the public expense. Supposing the pauper insane to have increased in the same proportion as the population, we now have about 180. Of this number, perhaps, 40, by reason of some bodily infirmity or of a quiet, harmless disposition, would be rendered as comfortable in the poor-house as any where else. To maintain the rest in a hospital for the insane would cost, at present prices, about \$29,000, or some \$16,000 more perhaps than they cost at the poor-house. This would be equal to  $8\frac{1}{2}$  cents per head of the whole population, and to between seven and eight mills in the \$100 of the valuation of the State. It cannot be fairly said that this would be a very heavy burden, and we may well doubt, if, for such a purpose, and under circumstances of so much material prosperity, it can be justly avoided. Until therefore, it appears that the maintenance of all the incurably insane in regular hospitals is clearly beyond the means of our people—to be achieved, in short, at the expense of some greater interest—we have no right to feel that the line of our duty to these unfortunates lies only in providing for them by some inexpensive method, when it shall be discovered.

## VAN DER KOLK'S PATHOLOGY AND THERAPEUTICS OF INSANITY.\*

TRANSLATED BY J. WORKMAN, M. D.

### GENERAL PATHOLOGY OF THE BRAIN.

Before proceeding to the Therapeutics of Insanity,† I deem it proper to offer some general remarks on the nature of the Brain, and its pathological transformations.

The various parts of the body are distinguished from each other by their texture and functions, and these differences so manifest themselves in disease as not to permit the physician to overlook them. Many parts are signalized not merely by their rich vascularity, but also by their high excitability, and in consequence they are susceptible of severe inflammatory disorder from only trivial disturbing agencies,—as, for example, the lungs. It is indeed the fact, that the stomach though rich in both blood vessels and nerves, yet tolerates without apparent result injurious impressions which would, in other parts, induce severe inflammation; it remains uninjured by hot spices and other substances. The peritoneum, on the contrary, though only sparingly supplied with

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† Dr. Workman's Translation of the Therapeutics of Insanity—constituting the second part of van der Kolk's work, is contained in the *JOURNAL* for April and July, 1864.

nerves and blood vessels, may rapidly become inflamed even from atmospheric exposure.

The brain, with all its high importance, occupies, in this relation no elevated position; an inflammatory condition is seldom induced in it by trivial excitations. Severe acute cerebral inflammations are indeed met with, especially amongst children, whose organism is preëminently excitable; and in later age we find a much greater tendency to them in males than in females, as well as a more general tendency in the former to structural degeneration. It is however astonishing, to what an extent the brain may be stimulated and excited, but especially in women, without the induction of inflammation; and even when at length it does occur, it usually attacks first the membranes, and takes a chronic course. In the brain substance itself, primary inflammation rarely occurs; and when it does occur it is generally only local.

In the insane we more generally find diseased conditions of the membranes with morbid changes in the cortical layers, than in the brain substance itself. In the latter the most usual results observed are softening or hardening, consequent on long continued disease. From this circumstance it has happened that some persons disappointed in their autopsical researches, and concluding that the trivial deviations from the normal condition, discovered by them in the brain, could not have necessitated the extraordinary mental manifestations observed during life, have been led to the belief that insanity is a purely psychical affection.

The pathological anatomy of the brain has yet farther tended to the establishment of doubt, from the fact that in the dead body we sometimes meet with distinct textural degenerations, or purulent collections, though dur-

ing life the individuals did not show the slightest symptom of ailment. As inflammation of the brain substance mostly remains circumscribed, there results not from it any insane manifestation. When however this result ensues the inflammation must have extended to the pia mater, or to the anterior and superior cerebral lobes. We are aware that portions of the brain may even be lost, and the patient may, notwithstanding, without any impairment of mental power, completely recover, provided the injury does not provoke meningeal inflammation, which may extend over the brain, and also that the cortical substance of the anterior and upper portions remain sound and in functional integrity.

With a view to illustration of this principle, I shall here detail some observations which I have noted. A carpenter was struck on the head by a heavy beam of timber, and he fell down senseless. On examination a manifest depression and a fissure were found on the crown of the head. The symptoms of cerebral compression, after sometime, indicated the necessity of trephining; and after the operation a small quantity of pus escaped. The patient became conscious, and felt his head easy. Before the operation coma was present, but after it there was no delirium. The patient described his own feelings during the operation as that of hearing a powerful alarm. He found himself instantly quite well, and went about his daily work, without making any complaint whatever. Three months after the operation he dropped dead, at his work. On *post mortem* there was found under the right coronal suture, a pus sac, of about two centimetres deep, and two and a half broad, which reached to the right ventricle, but did not communicate with it. The walls of this sac were about five

millimetres in thickness, and consisted of long cells, and new areolar tissue. The ependyma was inflamed on the inner surface of the ventricle, probably in consequence of the enlargement and extension backward of the pus sac; and the inflammation in it had proceeded to suppuration, so that a thin looking, rather serous pus had passed through the third and into the fourth ventricle, where it probably caused sudden compression, and induced the fatal catastrophe. Not a trace of inflammation was seen on the upper surface of the brain; the cortical portion of the brain was quite sound, and the meninges were free from inflammation. This man, notwithstanding the important suppurative disorder, remained up to his death in full possession of his mental faculties.

Another interesting case came under my attention before the preceding, in a man of seventy-two years of age. He had, so far as he could remember, enjoyed until the present uninterrupted good health. Without any known cause he became affected with an unpleasant feeling, as if insects were creeping over him, and he had a numbness in the hand and foot of the left side, which was soon succeeded by complete paralysis of the left arm and leg, so that at the end of fourteen days all motion of them had ceased. But contractions in the flexor muscles of the paralyzed side soon set in, and these alternated with tremors and involuntary movements. At the end of four weeks he was unable to move or turn the head. The facial muscles, however, still retained their mobility and the pupils were not dilated. The disagreeable feeling in the limbs still remained. Sixteen days from the commencement of his trouble, the power of the sphincters was lost, though the motions took place with daily regu-

larity. *The appetite was good throughout.* The pulse accelerated and full, and sometimes quite hard. Decubitus soon set in, on the lame side. In the last days, a swelling and pain in the left arm, with excoriations at the elbow, were presented, and the whole arm became of a bluish hue, though the pulse had not changed. Derivatives on the neck, and the exhibition of Flores Arnicae, produced no improvement. Still the patient, even to his last breath, was perfectly clear in his consciousness; *he had not the slightest pain in the head*, or sense of heaviness in it, or any unusual feeling; and his mental possession remained perfect. In reply to my questions, made with the view to elicit the facts, he assured me, two hours before his death, and six weeks from the commencement of his illness, that before this disease attacked him he never had suffered from headache, and that during its course he not once felt it, nor any noise in the ears. Whoever saw this old man with his well colored cheeks, and heard him speak with perfect mental soundness, could hardly have regarded him as laboring under any disease; he complained only of the pain in his left arm, and the loss of power in the left side.

The post mortem showed that the small intestine had wound itself in a singular manner, round the descending colon; the sigmoid flexure was contracted, and the part of the colon above was distended with air. The colon was pressed in between the liver and diaphragm, and it had made deep furrows on the upper surface of the liver; from which it was manifest that the distention of the gut must have been of long duration. *Yet the patient had not, at least during his six weeks illness, suffered from any sluggishness of the bowels.*\*

\* This part of the case is deserving of our careful considera-

The heart and lungs were sound. I now laid open, on the front, as I have always been wont to do, the spinal canal; and in doing so, I found that all the vertebrae were grown together, by means of large ossific deposits. The sac of the dura mater was wide distended and filled with reddish serum. The cervical portion of the spinal cord showed increased firmness, especially on the front near the fourth vertebra; and at the same place the pia mater had a greyish colour, and adhered to the arachnoid by a pseudo-membrane. At various places in the arachnoid, cartilaginous, and even bony lamella were seen.

The dura mater of the brain had grown so fast to the skull, that the latter could not be separated from it, and the membrane had to be cut with a cruciform incision. On the right side, marks of a by-gone arachnoiditis appeared. On the anterior lobe of the right side, about one and one-half centimetres from the falciform process, where Foville's convolutions of the fourth order are found, there existed a manifest cerebral softening, with sharply circumscribed boundary. This softening, which affected an equal portion of the grey and the white substance, commenced in front above the orbit of the eye,

tion. The readers of the *JOURNAL OF INSANITY* will find that it fully bears out my observations in the preface to the translation of the therapeutic part of van der Kolk's book, published in the number for July, 1864, as well as those offered by me in a paper read before the Association of Medical Superintendents, at their annual meeting in New York, in May 1863, and published in the July number of that year, in the *JOURNAL*. We very clearly see, in this case, that notwithstanding the extraordinary condition of the colon, as well as of the small intestines, there existed no requirement for purgatives; and at the same time we can hardly fail to apprehend that the exhibition of them would have been productive of additional evil.—*Translator.*

and stretched as far as the gyrus parietalis anterior, and yet farther behind the process, to the gyrus parietalis medianus. Here it was about three centimetres in depth, and its greatest breadth, under the frontal bone, was two and one-half centimetres. In the whole extension of the disease, the pia mater was fast grown to the brain, and could not be separated without tearing; on the anterior lobes, indeed, the softened brain mass even down to the corpus striatum, clung to the pia mater, as may yet be seen in the preparation, in my collection.

In all other parts nothing abnormal was found, either in the brain or the pia mater, and the latter was quite easily separated from the brain. The left hemisphere was quite normal. Only the usual quantity of serum was found in the ventricles. Nothing abnormal was found in the corpora striata, the thalami, the fornix, the pons, or the cerebellum. The medulla oblongata seemed to be rather thickened. The grey substance, excepting at the pathologically transformed parts, showed no change of color. Hyperæmia was not observed in either the brain or spinal chord. It is evident from the facts, that we here have had a circumscribed softening and degeneration, which from a depth, by the side of the corpus striatum, from the so-called *tenia semi-circularis*, appears to have proceeded, until it reached the upper surface where it outspread and constituted a local and limited inflammation of the meninges.

In this case the greatest part of the anterior lobe, which I regard as the organ of the higher mental faculties, was degenerated and destroyed on the right side, and yet the patient had not suffered any mental disorder, nor, indeed, had he ever complained of any abnormal feeling in the head. At first sight this appears contra-

dictory to my views ; yet it is quite consonant with what I have previously said regarding the functions of the different parts of the brain. It has long been known that the hemispheres of the great brain are not sensitive, and that we may cut away a portion, without the patient's knowledge, even when he is in a state of perfect consciousness. This insensibility rests upon the circumstance, that the various perceptions and impressions which we acquire, proceed from cells of various sensuous energy, the functional action of which is aroused by external impressions, and subsequently is perceived by us. Since, therefore, the cells in the hemispheres in the brain surface are not capable of imparting to us perceptions or pains, (which is the supposed function of the perception cells at the base of the brain,) diseased conditions of the hemispheres themselves, may cause no pain ; in other words the hemispheres are insensible. The cells of the cortical layers react indeed to stimuli, which produce perceptions beyond themselves ; yet not as perceptions of pain, but in the form of conceptions or ideas, or of impulses, inclinations, or dispositions, according to the various locations of these cells. If there exists a merely local affection, as in the two preceding cases, and in which degeneration has taken place, then the degenerated parts certainly can no longer perform their normal function, or form for us any perceptions, which might find expression, in a stronger intensity of conceptions, ideas, or dreams. But from the rest of the brain mass no pathological symptoms may go forth, as it has not yet been affected, provided the meningitis does not extend farther over it.

We may certainly perceive, from these cases, that the brain possesses but trivial irritability, since such remark-

able local degenerations may be present, without affecting the surrounding parts. This, however, occurs only in adults. In a child, such a destruction would not have remained so entirely local, and general meningitis would decidedly have appeared.

The local lesion, in the second case, must have proceeded outwards from the deep part of the brain, until finally it seized the pia mater, and established in it an inflammatory condition, yet still merely quite local. The fact wears a different aspect, when the disease, as in cases of mania, proceeds from the brain surface, or from the pia mater itself. Then it spreads with more or less rapidity, over the entire surface, or at the least, over the greatest part of the hemispheres. The pia mater and the arachnoid participate in the general property of serous membranes, which leads to the extension over their whole surface, of inflammation originating in them. Whether mental disorder, in such cases, is presented or not, depends on whether the underlying brain layers share in the inflammatory process. This state of matters is not sufficiently considered by physicians.

A trivial congestive condition, or an incipient inflammation of the pia mater, may be limited on its outer surface, next the arachnoid; a plastic exudate is then formed beneath the arachnoid, which frequently under the appearance of a more or less speckled membrane covers the whole brain. This condition occurs often in the insane, and I was once of the opinion that it might be regarded as a distinguishing characteristic of insanity. Extended pathological research, however, soon convinced me, that the so-called speckled membrane, or whitish exudate between the pia mater and the arachnoid, is met

with also in persons free from insanity, and even in those who have never complained of headache. The same fact has been established also by Nasse, who refers to an interesting case, in which stricture was found in the small intestine, and a strong speckled membrane was outspread over the whole brain, though the patient up to the final loss of pulse, and the death-cold of the limbs, had not the slightest delirium, or impairment of consciousness. Nasse, therefore, virtually overthrows the ingenious but one-sided theory of Bayle, that insanity is invariably the result of meningitis.

More than 30 years ago I pointed out (*observationes anatomico-pathologicae*, 1826, p. 28,) that contiguous parts, possessing different textures are not readily thrown into inflammations of equal severity. In costal pleuritis, the intercostal muscles almost always remain unaffected, and in peritonitis the muscles of the abdomen are but seldom inflamed. The fact is similar as to the pia mater. Congestion, inflammation, or effusion, may limit itself on its outward surface, and leave the brain exempt, and we may find on examination after death an exudation enclosed between the pia mater and arachnoid, though during life not the slightest pathological cerebral symptom was observed.

I must in this place refer to the fact stated by me in a former part, (*circulation in the brain*, p. 53,) relative to the vessels of the pia mater,—that in the pia mater the arterial blood finds a direct passage from the arteries into the veins, without the invariable necessity of passing through the capillaries, so that an increased flow of blood, and even congestion, or light inflammation may occur in the membrane, without the vessels of the brain

surface participating in it—we may indeed say that the storm passes over us, without having been aware of it.

In consequence of the trivial irritability of the brain, inflammation extends itself in it tardily, and generally takes a chronic course since we observe that the muscular structure of the heart, despite of severe pericarditis and exudation into the pericardium, may remain sound, we are quite justifiable in the assumption, that in inflammation and organized exudation on the outer surface of the pia mater, the diseased process does not usually penetrate the brain surface; and as the hemispheres are insensible, an excitation of the brain surface, although it may lead to high mental disturbance, yet no headache may appear, and trivial affections will bring no particular pathological symptoms in their train, so long as the mind (Seele) still holds the rein; whenever this government is suspended, then we may believe the brain surface is strongly seized.

Nasse and others have, without any foundation, endeavored to exhibit the manifestations of meningitis as the primary causal agency of insanity, since meningitis with exudation may occur without cerebral symptoms. Every thing as to the extension of the inflammation depends on whether it becomes limited on the outer surface of the pia mater, or involves in the process the brain surface; in both cases the exudate between the pia mater and arachnoid is the same.

Local cerebral diseases occur not alone in the frontal and parietal regions, but also in the temporal, or the inferior lobe. I have frequently found at the point of this lobe collections of pus, when no cerebral symp-

toms or pain had been observed. But pain, indeed severe pain, is felt when the dura mater becomes involved in the inflammation. If the inflammation of the brain substance is altogether local, as for example when it occurs from stasis, or when, as in the case of the old man of 72, it proceeds from a deep part of the brain, —then symptoms of brain disease entirely fail. If the inflammation is circumscribed on the outer surface of the pia mater, then mental excitement and sleeplessness take place, or sometimes a feeling of lightness, or perhaps of heaviness and fulness; or perhaps the patient feels as if a foreign body was within the skull, moving hither and thither,—a feeling probably resulting from distension of the bloodvessels, or from the movements of the fluid between the arachnoid and pia mater. If the brain surface be more highly excited, then, in acute cases, delirium is present, and in chronic cases, mania or melancholia, with their accompaniments. But in insanity, and especially when of the idiopathic form, we seldom hear the patient complain of headache.

As, then, the hemispheres possess but trivial irritability, they are insensible in this sense, that disease in them does not make itself known by pain, so long as it operates not directly, or as yet but secondarily, on the deep parts of the brain, or does not outspread on the dura mater; but in this relation they exhibit a high degree of sensibility, and very severe symptoms may be called forth by trivial excitement, though no marks of inflammation, or but trivial ones, may be present. A tubercle, or a moderate sized blood effusion, may induce the most severe convulsions; excitations of the brain surface, or severe congestions, such as occur in delirium tremens, may provoke fierce maniacal outbursts; loss of

blood, however, an occurrence inducing a condition quite different from congestion, or inflammation, may have a similar result, as the relation of the blood to the cells and the parenchymatous fluid undergoes a change, by means of which the equilibrium of the cell contents and the surrounding fluids is disturbed, and at the same time the function of the cells.

The motor cells in the corpora striata appear readily to be thrown into this changed state, because in deadly hemorrhages, convulsions and loss of consciousness may be presented without maniacal outbursts. Unimportant idiopathic, or sympathetic causes, such as worms in children, or hysteria in girls, may provoke severe symptoms, whilst on the other hand very important morbid affections, such as local suppurations, may exist a long time without becoming known to us. But severe symptoms do not always justify the assumption of severe inflammation, which we are to meet with copious venesections and other antiphlogistic measures.

Though the brain is in so far sensible that a trivial excitation of it may evoke severe symptoms, still it does not belong to that class of organs, in which severe inflammation is speedily developed. In the morbid process of which we here treat, the inflammation is much more disposed to the chronic, than to the acute form, and therefore we must not have recourse to copious bleeding so precipitately as we often may in pleuritis or pneumonia.

The feeble action of the vascular system in brain diseases is to be ascribed to the fact that even when severe symptoms appear, yet no fever sets in. But should a strong encephalitis be developed, then we should have

marked indications both in the fever and the pulse, and the most active antiphlogistic measures might be necessary.

All pathological manifestations are dependent upon the nature of the parts affected; but the brain belongs to the organs of association, and has been deputed for the peculiar function of connecting body and mind (Seele); and it is the organ through which the psychical energy proximately makes itself known. Pathological manifestations in connection with this organ and its function, are presented, the explanation of which is by no means easy, though they are generally well known; among them the first place may well be assigned to the condition termed unconsciousness, which is observed also, in sound health, but in all violent morbid incursions, and in numerous affections presents itself as a striking symptom.

During sleep we are but temporarily unconscious, that is, whilst we are not dreaming; during our dreams, the cells of the brain surface are in action. For the action of these cells, to the highest degree of the natural state, a perfectly undisturbed circulation, and a moderate pressure of the parts, appear to be requisite. When pressure on the brain exists, as in dementia, in consequence of cerebral effusion, by which the convolutions appear to have become flattened, consciousness does not totally disappear, though its actuality is reduced almost to nothing. The utterly demented almost resemble wax statues,—they speak not; they move not, and they stir not from the spot on which we may place them. The mind seems, in this condition, to receive but faint impressions.

Should more severe pressure, from rush of blood, or any other causes be produced, then coma results, out of which it is very difficult to rouse the spirit, which now has no cognizance of anything that happens.

In hysterical women we observe faintings from the most trivial causes. If spasm be present, the countenance is often pale, and the circulation seems to be curtailed, through the influence of the Sympathetic, which, as I have before shown, contracts the vessels, and thereby so modifies the circulation, that the necessary exchange of elements in the brain cells does not take place, and their delicate functional energy declines. The mind no more receives impression, since all conceptions, and also consciousness itself, exist through these cells.

If the cells are overloaded with blood, as in epilepsy, or apoplexy, then total unconsciousness takes place. The same result occurs when too much blood is withdrawn from them, in copious venesection or hemorrhages. If the circulation undergoes disturbance from the nervous system, the result will be the same. The cells of the brain surface undergo functional disturbance from the slightest causes, and even from the impressions made on them by every-day life, they become so exhausted, as to require the restorative influence of sleep,—a fact which can not be said to obtain, in the like manner, as to the organs of circulation, of respiration, of nutrition, and secretion. From these circumstances it is, *a priori*, conceivable, how, in local inflammation with subsequent softening, or suppuration in the brain surface, those cells should so suddenly lose their activity, and furnish no further symptoms, and that, in consequence, the mischief done may remain concealed.

in the brain cells which no longer manifest their peculiar power or energy, no longer work on the mind. The mind (Seele) stands not in immediate union (verbindung) with the material itself, but with the power which, through the elementary vital operations, is developed in the cells.\*

The various orders of cells, in this respect, deport themselves differently. The perception cells, for example, speedily cease to transmit impressions to the mind in sleep; but even in other very different occupations the mind experiences the same fact, and then its condition is similar to that of a person who no longer hears a clock striking its wonted chimes. The cells of the brain surface do not so rapidly lose their activity. Etherized persons do not feel any pain, though they hear their own involuntary scream; and they cease to see, although not totally unconscious. On the other hand, the activity of the motor cells is often powerfully augmented, when the cells of the brain surface have lost their activity. During the severe spasms of epilepsy, there is a cessation of consciousness; indeed an unconscious state is mostly associated with any sort of spasms. Involuntary motions may be associated with perfect consciousness, as sometimes happens in limited affections of the spinal cord, for example from the exhibition of strychnine; in such cases consciousness is not lost, at least not speedily, so long as respiration holds its course. When convulsions result from apoplectic effusions into the corpora striata, then unconsciousness sets in. In epilep-

\* In order to understand this passage, it is necessary to state that Schroeder van der Kolk was a firm believer in the duality of power and matter (Kraft und stoff,) and in this respect was an adherent of Faraday.—*Translator.*

tics the convulsions seem to proceed from the medulla oblongata, and unconsciousness accompanies them, whilst the disease, acting upon the distribution of the Sympathetic within the cranium, and affecting the circulation of the head, lays hold of the whole brain; but unconsciousness is by no means, as many authors intimate, always the first symptom. I was quite recently consulted by an epileptic, who informed me, that at the outset of a fit he first became faint, and then fell down, but in so doing he often heard the fall, or his own voice, and after this unconsciousness took place; indeed he said he was often conscious of the first struggles with which the fit began. It is therefore apparent that consciousness is not at all (*gar nicht*) lost in the convulsive movements.\*

In general the perception cells first lose their activity, and subsequently the cells of the brain surface lose theirs. Concurrently with these occurrences, the activity of the motor cells is augmented, and thus a reversed order of phenomena in their course of action, is manifested.

In the brain there is but little areolar tissue (*Bindgewebe*,) for what Bidder has here distinguished as such, I cannot so regard. The bloodvessels are indeed invested by a sort of areolar tissue, but on the minute capillaries it has not been with certainty demonstrated. The nerve tubes are in a manner lined together by an intercellular fluid, but it exists only in small quantity, and seems to contain considerable albumen; and on it depends the firm consistence of the brain. By preservation in alcohol or

\* This is surely pushing theory beyond fact, at least in epilepsy; and certainly beyond the limits, which the case just cited by the author justifies.—*Translator.*

chromic acid, this intercellular fluid is rendered firm, as it coagulates, and from this the brain derives its firmness. From chronic inflammation, or persistent congestion this fluid undergoes an alteration, in consistency or in quantity.

In acute inflammation the transudation is mostly plastic, and it coagulates, so that thickening of structure is produced. In chronic inflammation, the intercellular fluid is more watery and therefore disposed to absorption; fatty decomposition commences, and the connection of the parts is lost in fatty softening; finally even the nerve tubes are destroyed, and cavities are formed—generally, however, such cavities follow extravasations of blood which have been absorbed. If we place a section of brain thus affected, in alcohol, it speedily hardens, and has a granular appearance under the microscope. If, however, the intercellular fluid be less albuminous, and brisk degeneration is already on the advance, then the hardening takes place slowly in alcohol, and not until after several days immersion has the brain coherent firmness to allow of thin slices being made from it. The fatty substance filling the whole structure renders these slices opaque. We also find in them a quantity of fine granules, which are lost in chloride of lime, and only coagulated albumen remains.

In acute inflammation, large cells, which are entirely filled with small fatty vesicles, form between the fibres and cells of the grey substance. These were formerly called inflammation-globules, because so often met with in this diseased condition, and in fact they occur in the brain, only in inflammation.

Whether the amylaceous corpuscles which I have observed between the so-called inflammation-globules in

the medullary substance, originate after death, as Stilling assumes, or are present during life, I must leave undecided.

#### PATHOLOGICAL ANATOMY OF THE BRAIN.

That excitations and inflammatory conditions of the pia mater, according to their degree of development, stand in the most intimate relation with the various forms of insanity, no one can doubt, on retrospection of the statements made by me relative to the cortical substance of the brain, as the organ of the higher mental faculties, the connection between mind (Seele) and body, the influence of the body over the mind, and the circulation of the blood in the brain. There are, however, still a few leading points, which are worthy of further remarks.

It is known that the pia mater is covered by the arachnoid. Authors now generally, and in my opinion with perfect accuracy, describe the arachnoid as lining the inner surface of the dura mater, and this portion is designated its outer fold; its inner or visceral fold on the other hand, covers the brain, and so that it does not dip between the convolutions, but bridge-like, passes from one convolution to another. It is attached to the underlying pia mater by tender areolar tissue. The pia mater has been regarded as a vascular membrane, which continually gives out a serous fluid, which intervenes between the pia mater and the arachnoid, and in the normal condition seems never to be totally wanting. But if the pia mater passes into an inflammatory condition, or even into a condition of strong congestion, then not only is the quantity of effused serum between the membranes increased, but the fluid becomes fibrinous, and coagulates after death.

In one case I was able, within six hours after death, to undertake the examination of an insane person who had already passed into fatuous dementia. After opening the skull, and laying bare the brain, there appeared all over, between the arachnoid and pia mater, a thick exudate, which, on cutting through the membrane, flowed out so copiously that I placed a dish beneath to collect it. In half an hour afterwards I saw, to my surprise, that the fluid in the dish was changed into a whitish mass, which looked altogether like an inflammatory rheumatic membrane, and allowed itself to be drawn up as a firm skin. This fluid must have consisted chiefly of fibrin, which thus coagulated. In the mean time, the cerebral membranes had become transparent, and had resumed their natural condition, although only recently they appeared as if thickened ; but the pia mater was so firmly grown to the cortical substance, that it could not be withdrawn without tearing away with it the brain substance.

In order to arrive at a correct decision on the form and degree of insanity, we must hold fast by the conviction, that the anterior and upper part of the brain stands in the closest relation with our higher mental powers, and especially with the grey surface, or cortical layers, which lie beneath the frontal bone ; and as far back as the apex. When, in persons who have died insane, the pia mater is carefully raised from these parts, and washed by dropping water on it from a sponge, we may remark the following facts :

In rare cases, those for instance in which the patient dies at the commencement of the disease, the grey surface appears diversely colored ; on some convolutions it is bright red, and in others paler. These color-shadings

are sometimes not to be observed without close inspection, and they are the results of severe congestion in these important parts, or perhaps of incipient inflammation. We find them also in patients who have died in typhus or nervous fever, with strong delirium. We rarely find these changes in recent cases of insanity, at the same time also on the inferior or posterior lobes.

When, from long duration of the disease, and severe commencement, it has passed into inflammation, we have much trouble in withdrawing the pia mater, the vessels of which are now gorged, from the brain surface; indeed, according to the degree of inflammation, whole layers will be separated from the grey layer, (schicht,) and remain on the vascular membrane. In these cases a greater or less quantity of plastic lymph is almost always thrown out between the pia mater and arachnoid, and from coagulation in the dead body it may become so opaque, as to constitute a thick white coating through which the convolutions will hardly be visible.

If after chronic duration, the disease has passed into stupidity or fatuity, then we no longer observe any strong coloring. The vessels are but little filled, and the pia mater admits of as easy separation from the convolutions as it does in the healthy state; the grey substance appears pale and anemic and even thin and somewhat atrophied; the exudate which, in the earlier stage, unites the pia mater so fast to the grey surface, has now all disappeared; a watery clear serum bathes the whole surface, and the blood vessels, especially at the base of the brain, are in general covered with bony plates, or atheromatous layers.

When transformations of the above character have taken place, recovery can hardly be expected. In the

second stage, however, that of coalescence of the pia mater, recovery may yet take place; for I have found this morbid condition frequently in persons who have suffered in the same way, or perhaps not near so severely, as others who recovered.

Chronic inflammation of the brain substance is not always limited to the anterior and upper surface; after long duration it lays hold on the inner surface of the sinus and the ventricles. The pia mater in the ventricles is usually thickened, and it has, under light falling on it, the appearance of being covered with fine sand-grains. At the same time we find a certain quantity of clear serum in the ventricles, from which they undergo a corresponding softening. The pia mater on the corpora striata is mostly thickened, and cannot in general be separated from the brain without tearing with it some of the softened mass. During life, this transformation is usually indicated by a trembling of the lips when speaking, or in a more advanced stage by stammering and a dragging and unsteady gait. The third ventricle also may be distended with serum, in consequence of which the roots of the nerves supplying the muscles of the eyes, suffer pressure. From depression of the energy of these nerves, the equilibrium between the levator palpebrae superioris muscle, and the orbicularis, which is supplied by the facial nerve, is destroyed, and ptosis is produced, a symptom which betokens a brain disease not to be removed. Should the pressure within the third ventricle be augmented by continued effusion, then the oculo-motor nerves, are still further weakened. An unequal action, between the interior rectus muscle, which is supplied by the oculo-motorius nerve, and the exterior rectus, which is under the government of the abducens, now

exists, and greater or less strabismus externus, is to be observed.

#### INFLAMMATION OF THE DURA MATER.

We find but little in authors on the subject of inflammation of the dura mater. The disease would appear to occur very rarely, or not at all, as a primary affection, but only in conjunction with injuries, or, caries, of the cranial bones, and it is only incidentally treated of, in this connection.

Andral, who has collated so many observations upon cerebral diseases, does not give one case of acute idiopathic inflammation of the dura mater. Abercrombie mentions only one case, in which the arachnoid and pia mater, and the brain, were also embraced, as is usually the fact; but this case does not appear to have been observed by him before the death of the patient. Fizeau, Hankel, and Rumler have detailed a few cases; and two are given, each, by Schoenlein. Copland, and Bressler. Foville says the symptoms of inflammation of the dura mater appear to be unknown. In the excellent work of Lallemand we find, however, several observations on inflammation, and various other affections of the dura mater, which resulted from injuries, exostosis, syphilis, and other causes. He has depicted the characteristic symptoms of the disease in perfect accord with my own observance. Hoppe was ignorant of the characteristic symptoms; and according to him, the disease occurs very seldom as primary or idiopathic, but mostly from caries, or some other lesion of the skull, or from syphilis, or external injuries.

We find the most important of the symptoms given with brevity, but with fact-consistency by Leibuscher (Ber-

lin, 1854, and Leipzig 1860;) he remarks, however, as the others, that the spontaneous or primary form of the disease, at least the acute, occurs but very rarely, and that he had found only one case in Abercrombie.

So far as my own experience goes, the disease is by no means so rare, but it is usually mistaken, and is most commonly regarded as rheumatic headache. As, however, this very dangerous disease may be recognized by distinct symptoms, and as the possibility of cure depends on its detection, I have deemed it useful to present the details of a few cases observed by me.

**FIRST CASE.**—A woman of about 40 years old, came into the outer hospital in Amsterdam, which I attended from 1824 to 1826. She was treated by me for fever and dropsy, and left the institution recovered, without having shown any indications whatever of brain disease. A year afterwards she returned to the hospital, with manifest mental aberration, under which she refused all medicine. The countenance was swollen and florid, from congestion; she complained constantly of severe headache, and kept her hand mostly on the left side of the occiput. An increasing comatose condition soon set in, and the evacuations of urine and faeces became involuntary. Leeches were applied to the head, and subsequently cold ablutions; and a cooling mixture was given inwardly, but the latter was not fully taken; no relief was produced. After two days she improved, and her mental powers were quite restored. She complained only of faintness, but this passed off in a couple of days. I entertained the belief that her recovery was perfect, as the headache had quite passed away. A fortnight later, without any known cause, she again refused all medicine, and stupor and coma again set in. This state lasted nine days, when once more all her symptoms disappeared. But the attacks of sopor returned frequently, and lasted from four to five days each, at the end of which they passed off spontaneously. She would not take either food or medicine during them. The stools were natural and of usual quantity in the intervals. The pulse was not quickened, but rather weak. The treatment was mostly cooling and antiphlogistic. Ultimately diarrhea set in, under which she gently expired, in a comatose state. The post mortem showed the left hemisphere fast

grown to the dura mater, and especially above the left ear, near the falciform process, and on the upper part of the inferior lobe, close by the fissure of Sylvius; the dura mater was here reddened and thickened by inflammation.

No brain softening was found at this place, rather, indeed, the brain appeared somewhat firm. In other parts of the body nothing unusual was found.

From this case, I apprehend that a chronic inflammation of the dura mater and the brain, with long and complete intermissions, may occur, in which not the slightest symptom of disease may be presented.

**SECOND CASE.**—A woman about 40 years of age had for a long time complained of insufferable headache, the severity of which finally obliged her to seek relief in the outer hospital of Amsterdam.

On admission she was quite insane, and had all sorts of delusions, and after two days she passed into a state of torpid alienation. The eyes had a dull expression, and she lay in a stupid condition. She frequently pressed her hand against the forehead, which action was prompted by the severe pain in that region, though she now, owing to unconsciousness and her half comatose state, complained but little of it. There could be no doubt as to the existence of a local brain disease. Derivative remedies, antiphlogistic treatment with leeches, and, later, some doses of camphor, did very little good.

After six weeks, consciousness returned, the headache ceased, and not a trace of somnolence was observed; the woman felt sure she had perfectly recovered, and I began myself to believe in recovery although I had before me the sad experience of the former case. All the functions were in their normal state, and the woman seemed free from every defect.

Though the convalescence was assiduously watched, yet after eight weeks, without any known inducing agency, the headache returned with renewed severity, and with it was associated delirium with all sorts of insane delusions; two days later coma set in. Involuntary contraction of the left limbs took place (an occurrence I have often met with in brain softening,) and very soon after the woman died.

On opening the skull, I found the right hemisphere in front very fast grown to the dura mater. Beneath this adhesion lay two tubercles, which, on being cut through, showed a cartilaginous hardness,

and the brain mass around them was in a state of brothy softening. In the posterior and lateral parts of the right hemisphere similar traces of inflammation were found, and small tubercles surrounded by softened brain substance.

In this clearly marked brain affection, a perfect intermission of all symptoms of disease had also taken place. I would remark in this case that the anterior cerebral lobe was affected, and in consequence the delirium and mental aberration were present in a higher degree than in the case preceding.

THIRD CASE.—A woman of about 36 years, of weak and stupid mind, complained of an uncommonly severe headache, and in consequence sought relief in the outer hospital in Amsterdam. She had a very dull aspect. In two days she fell into a comatose state, which alternated with strong mental aberration. Resolvents inwardly, a blister to the neck, and the in-rubbing of tart. emet. ointment, produced no improvement. After a little time I tried nitre with camphor, and in this case also, after six weeks, all the symptoms disappeared, and the woman appeared to be well. Though I might not ascribe the change to the camphor, yet it was clear that this medicine had done no harm. The woman seemed to make a perfect convalescence, and indeed to be quite cured; but from my past experience I forecast a fatal return of the malady; and this showed itself in three weeks from the time of the improvement, despite of every care to avert it.

The patient very speedily became wholly unconscious; congestion and a flushed countenance appeared, and she had laborious breathing, and light convulsions. I opened a vein, and abstracted blood, which had the inflammatory character, and subsequently I applied leeches and cold ablutions to the head. The stupor did not decrease, the congestion of the head continued, and finally convulsions took place, and ended in death. The intestinal evacuations in this case were sluggish, but the appetite, except in the comatose period, was quite natural. The iris had a striking pale color,—a fact which I had noticed in many other patients, and have often observed since.

On post mortem, strong inflammation was found in the liver and the right lung. This inflammation must, however, have been developed long before, for the liver adhered to the diaphragm by a very firm

pseudo-membrane, in which I was able to fill with quicksilver the new lymph vessels, which is practicable only in old pseudo-membranes. This inflammation had not, during life, made itself known by any sort of symptoms.

On opening the skull, I saw that on the left side the dura mater was fast grown to the hemisphere, and especially so behind the anterior branch of the middle meningeal, on the upper part of the inferior lobe. The brain mass was here softened, and infiltrated with yellow serum, that a cavity of two and one-half centimetres in depth and four centimetres in breadth, had been found. In the rest of the brain mass, which was a little soft, yet normal, red points were found throughout. A large quantity of serum ran out of the ventricles. The left corpus striatum was not so consistent as that of the other side. In this case, the inflammation had manifestly spread over the whole brain, more than in the others; it had penetrated to the ventricles and seized the corpus callosum, and in this fact we have the explanation of the convulsions, which occur especially in last attacks.

The recurrence of the disease, with such severity, despite of the prevention of all injurious agencies, deserves our most serious attention.

In all probability the extending inflammation of the pia mater had been developed in the first attack, and after producing the mental aberration, it had advanced, and involved the cortical layers in the range of the disease.

**FOURTH CASE.**—A woman of 57 years, who had for a long time complained of severe headache with numbness and beating in the head, came into the outer hospital of Amsterdam in 1826. She had frequent vomiting, with furred tongue, and complained of stiffness of the limbs.

Laxative and derivative medicines were administered, and leeches were applied to the head. After these, the bowels moved properly, but the uneasiness of the head, with sleeplessness, and a labored and stammering articulation continued; and contraction of the pupils, loaded tongue, a bitter taste, and strong thirst were present.

Under the persistent use of tart, emetic, laxative remedies, and oysters, the bowels were regulated, but at the same time the brain

symptoms became worse, and after five days the woman fell into a comatose state, with half shut eyes and open mouth. She lay mostly on the right side. The right arm was constantly flexed, but she pressed the left one on the left side of the head, indicating that she still felt there a dull pain. On the following day the mouth was drawn on the left side, and the pupils were still more contracted, especially the right one; the speech was extremely difficult, and in the persistent sopor the patient answered oft repeated questions merely with a few words. A few days after the arm had become flexed, paresis appeared in the right leg, and speedily advanced to complete paralysis. A constant whining complaint, interrupted at times by sharp outcries, indicated the continuing severe pain of the head.

Her state continued thus from 28th March to 4th April. Then under the exhibition of antiphlogistic and resolvent remedies, a mitigation of the symptoms appeared; the eyes became more open, the pupils were no longer strongly contracted, which condition had been greatest in the right eye: the left eye was red, from distended blood vessels; the obliquity of the mouth disappeared, and the sopor appeared to have passed off; but at the same time the discharge of urine became involuntary,—and the patient complained of severe headache on the left side, backwards. She had no delirium.

After two days the symptoms of the disease returned with renewed severity. The right arm became stiffly contracted, and felt cold; the patient could not hold anything fast with the left, probably from an augmentation of loss of feeling; the right pupil was again strongly contracted: as only a little dark urine was evacuated, I caused the catheter to be introduced, and a large quantity was thus withdrawn. Both legs were strongly drawn up, and coma and unconsciousness increased. On 18th April convulsions set in, under which the patient died.

On post mortem much indurated fecal matter was found in the colon. The caecum was inflamed and indurated, in some parts even of cartilaginous hardness; the liver was inflamed, and filled with tubercles; on the spleen was found a firm cartilaginous plate; the lungs were adherent, and hepatised. On the left side above and behind the parietal region, about one centimetre from the falx, and two centimetres above the tentorium, the dura mater had become adherent to the arachnoid and pia mater, over an extent of about seven centimetres, and was strongly inflamed and thickened.

The arachnoid under the adherent parts, covered some pus, the vessels of the pia mater were very much distended, the grey layers appeared much reddened, and numerous red points were observed in the medullary parts: the thalami, especially the left, were much reddened; the brain felt rather firm.

This case shows us that in our efforts to clear the colon of retained indurated faeces, we may fall into error, since the daily evacuation of the bowels was for a long time attended to, by the exhibition of laxatives and derivatives, aided by elysters.

The degeneration of the colon was not of recent occurrence, but the symptoms connected with it were obscured by the more prominent phenomena of the brain disease. It is probable that the foundation of the brain disease lay in the obstruction of the colon, as the posterior lobe was affected, and the colon more generally exerts a reflex influence over the posterior parts of the hemispheres, than over the anterior. The induration and thickening of the colon in the last period of the case, no doubt contributed much to the difficulty of evacuating the hardened contents.

It is to be remarked in this case, that the posterior lobes and the thalami were particularly affected; and the right pupil during the progression of the disease appeared much contracted, whilst the vessels of the left eye, the inflamed side, were much distended. The anaesthesia of the left arm may have been connected with the affection of the thalamus.

There existed in this case an intense inflammation in the posterior part of the hemispheres, without involving the anterior lobe, but no delirium was present, thus constituting a marked difference from the second case, in which the anterior lobe was diseased, and strong delirium

existed. In consequence of the intensity of the inflammation, the intermission was of short duration, and was incomplete.

This case is further instructive, in the fact that in a comatose condition, the bladder may be quite full, whilst the urine involuntarily dribbles out.

**FIFTH CASE.**—A full blooded man, between 40 and 50 years old, had, a year and a half before his last illness, suffered a fall upon the side of the head, and at the same time had broken a rib. Soon afterwards he had an attack of apoplexy, and the right arm became paralyzed, but not the leg. After a little time his condition improved, but the arm continued paralyzed. He had besides a lesion of the under jaw, which had been broken, half a year previous to his fall, by the forcible extraction of a molar tooth.

In the summer of 1825 he came into the outer hospital of Amsterdam, and was under my care. He complained of severe pain of the head, and tightness in the chest, and his arm was still paralyzed. After a short period of treatment, the symptoms disappeared, with exception of the paralysis of the arm, and he left the hospital apparently recovered.

In March of the following year, he was brought back, in a state of total unconsciousness. He had strong congestion in the head, and a hard pulse; he lay constantly on the right side. A free bleeding was had recourse to, and the blood had a very inflammatory character; the sopor did not abate in consequence of the bleeding; the only remarkable fact was that the patient now raised the arm that had been paralyzed, to his head. The movement seemed to be in part voluntary, as he rubbed the top of the left side of the head, with the right hand; but at other times it was an involuntary movement, induced by contraction of the flexors, which bent the arm stiffly, and after we forcibly extended it and let it go, it would move of itself to the head again. He now laid on the left side, which seemed to be paralyzed, as no part of it moved. The right half of the face became paralyzed, and the muscles of the cheek and angle of the mouth hung motionless. The urinary and fecal evacuations became involuntary.

Blood cuppings were used on the head, but without any benefit. In the following night strong convulsions set in, and the patient died

under them. The post mortem showed the skull much thickened, not a rare fact in chronic inflammation of the dura mater. Much blood flowed out from the left and hinder parts, after passing the saw through. The dura mater at these parts was much thickened and fast grown to the brain. The upper surface of the brain was dry, probably in consequence of the escape of the serum, in the section of the dura mater. The ventricles contained much bright yellow serum.

The medullary brain substance, under the adherent portions of the dura mater, and as far inward as the lateral ventricle, was reduced to brothy softening, and some yellowish serum was found amongst the nerve fibres. The softening had, in a somewhat oblique direction, an extension of not less than eleven centimetres. On the middle of the softened part, where the dura mater was most affected and thickened, the brain substance was changed into a sort of tubercle, of about three and one-half centimetres in size; and this was, to the depth of two centimetres, quite hard and red colored, and fast grown to the dura mater. But it was not tubercle, for the boundary of the hardened part passed over into the softening, and the acutely inflamed part was surrounded by the softened mass. The skull, over the diseased part, was carious, and the eroded bone felt rough.

Probably this was the spot which had sustained the force of the injury in the fall referred to. Through this external force, a chronic inflammation of the dura mater might well be developed, and at the first of the patient's residence in the hospital, I had observed some of those accessions which in similar lesions are wont to disappear spontaneously.

The half voluntary, half involuntary, movement of the right arm, and the paralysis of the left, are well worthy of attention. Probably excitation of the left corpus callosum, or of the left thalamus, and subsequent compression, by serum in the ventricles, had induced the paralysis on the left side.

The paralysis of the right arm alone, in a lesion, of the upper and posterior part of the hemispheres, might probably be adduced in favor of the assumption of Pinel

Grandchamp, that in affections of the posterior lobes and the thalami, (the arm,) but in those of the anterior lobes and the corpora striata, (the leg,) is paralyzed. I have, however, as little evidence to offer in support of this theory as Andral.

The involuntary pressing of the affected part of the head by the hand, despite the existing coma, proved how severe the pain must have been.

I may mention, as an unusual fact, that the under jaw on the one side, was as thin as a quill, as far forward as the infra-maxillary foramen, and the fore and hinder parts were kept together merely by bands.

**SIXTH CASE.**—This case has already been fully described by G. A. F. Quarin Willemier, (Diss. de Otorrhea, p. 57.) It occurred in a mason, who was precipitated by a falling wall, and being caught in his descent by the scaffold, he hung with the head downwards, and whilst thus placed, a heavy stone struck him in the region of the lower jaw, from which the articular fossa was much injured. From this time forward he complained at intervals of a pain in the head, on the right side. After the lapse of five years, this pain spread over the frontal and lateral parts, and increased to so high a degree, that he was almost driven to desperation; he had no rest, day or night: finally he became insane, and the pain seemed to have left him. Deafness in the right ear now took place, together with paralysis of the left *facialis*, and strange enough there were subsequently added ptosis and external strabismus of the right eye. No other paralytic symptoms were present.

On 12th January, 1835, that is to say, eight years after his accident, he was admitted into the Utrecht Insane Asylum, as a demented patient. After some time his condition improved, and he could again work, without complaining of pain. But all at once, without any known inciting agency, the pain again appeared, in a high degree; apoplexy took place, and speech and deglutition afterwards became difficult; the right eye appeared swollen and red. The apoplectic seizure was repeated, but on 2d March of this year, he was once more quite sane, though very weak. He was quite conscious of

approaching death, and arranged his affairs accordingly, and died the following night.

I found the dura mater above the *fovea glenoidalis* almost as hard as cartilage, and not less than two lines thick. The inferior cerebral lobe was fast grown to the dura mater, from the *fossa Sylvii* as far back as the cerebellum, and it was reduced to a broth infiltrated with serum holding some pus. Over the base of the skull, and on the *crura cerebri*, the *pons*, and the *medulla oblongata*, purulent serum was diffused.

The inflammation of the dura mater in front of the *pars petrosa*, extended as far as the wing of the sphenoid bone, and to the cavernous sinus, at which part the *oculo-motorius* nerve showed strong signs of inflammation, thus explaining the origin of the ptosis. The remaining nerves appeared to be sound. The dura mater on the *pars petrosa*, was not diseased. The cavity of the *tympanum* was quite filled with plastic lymph; the *ossicula* were reddened by distended vessels, and the *vestibule* and *semi-circular canals* presented the same appearance. The *pia mater* in front and above was so fast grown to the hemisphere, that it could not be removed without destruction of the cortical layers.

Without doubt the inflammation of the dura mater had been produced by the blow suffered eight years before death. Whether the blow had produced a fissure, or the condyle was degenerated, I am unable to state, as I was permitted to examine only the brain.

I could, from my own observation, detail more cases, especially of that class which proceed from *otorrhœa* and *caries* of the *pars petrosa*. I content myself, however, with the mentioning of a case observed by me, and described by *Tobbe* (Utrecht, 1860.) It occurred in a woman, in whom inflammation and suppuration in the *sinus frontalis* advanced, to the inner surface of the skull, and outspreading there, induced a suppurating affection of the *pia mater*, of which the woman died.

I shall now, by way of contrast, detail a couple of cases, from which it may be perceived that this very dangerous and ill-understood inflammation of the dura mater, may be treated successfully, provided we adopt a vigorous course.

SEVENTH CASE.—A strong built, powerful man of about 45 years, who had enjoyed good health from his youth, was affected, without any known cause, in November, 1832, with a pain in the arm and leg of the left side, which, however, by wearing flannel, appeared to have ceased. From time to time he was troubled with a feeling of powerlessness in both hands, which, however, soon passed off; this occurred about every eight days, and thus continued perhaps a quarter of a year. Soon after this a swelling appeared in the left knee; it was very painful, and under poulticing it suppurated and discharged a large quantity of pus, after which the opening closed.

In December, a pain was felt in the back of the head, near the ear, and it became constantly more severe; he, therefore, in January sought medical advice. By night the pain increased in bed, and as the man was unaware of syphilis, the pain was regarded as rheumatic, an opinion which was corroborated by the disagreeable weather. Sudorifics, chiefly Dover's powder, were given; a blister was put on the back of the neck, and kept running some time, and the pain ceased.

In October, 1833, he again came to his physician, as the pain again tormented him dreadfully in the same place, and extended itself over the ear. He had been free of pain for a long time, but recently it had become periodic, and now it had advanced to greater intensity. The pulse was weak, not feverish; the eyes were dull and tearful, and the countenance was pale. The bowels were sluggish. At first derivatives were ordered; next sudorifics, and especially Dover's powder; but the pain continued, and after four days, on 17th March, he came to me for aid.

I found him in a very uncomfortable condition. The head, which was wrapped in flannel, because of the falsely supposed rheumatism, showed some œdema, the countenance was pallid, and the pain of the head appeared to torment him severely. Every bending of the body was, on account of aggravation of the pain, impossible, and he was forced to sit upright in a chair all the night. A sub-paralytic affection of the left arm now occurred, but lasted only a quarter of an hour, leaving, however, behind it twitching movements. The eyes were dull, vision was weakened, and the pupils were rather dilated. Memory almost totally failed, and he seemed on the point of falling into utter fatuity. The pain extended itself chiefly over the left ear and the back of the head, and with it he felt a rushing sound in the ear.

I at once diagnosed a dangerous inflammation of the dura mater,

which had already outspread over the arachnoid and pia mater, and had likewise laid hold on the hemisphere, in consequence of which the mental powers were affected ; and I was further of opinion that otitis was among the associated morbid conditions. For these reasons I determined on an antiphlogistic and derivative treatment. The woollen envelopments were displaced by cold ablutions, and I leeched the painful part of the head. Inwardly, I ordered, R. Tart. emet. gr. v, Aq. destill. ʒv. fl. ; a tablespoonful every hour.

18th Oct. The pain has been a little relieved by the leeching, but is still severe enough. The tart. emetic has done no harm, and has not yet acted on the bowels. In other respects the condition is the same.

20th Oct. The head pain is still more severe, but seems now confined to a point, obliquely over the left ear.

I placed an issue on this spot ; I acted on the bowels by a lenitive electuary, and ordered the cold ablutions and tart. emet. to be continued. This treatment was persisted in, and the dose of tart. emet. from time to time increased.

29th Oct. At this time one scruple of tart. emet. to five ounces of water was ordered. The head pain had by this treatment decidedly diminished, and the whole appearance of the patient was improved. The twitchings in the left arm had, very soon after the application of the issue, ceased. Gradually, however, some nausea came on, but the bowels remained sluggish. I therefore ordered, R. Tart. emet. ʒj. Extr. aloes. gr. x., Fell. tauri inspiss. Pulv., liquir. ana., dr. ʒ. fiant. in pil. 40 ; 3, five times daily.

3d Nov. The pain has decidedly lessened, and the bowels are regular. As the patient was free from nausea, I ordered the pills to be given seven times daily.

11th Nov. The whole condition is better. The nights are quiet ; the patient can again lie down, and is refreshed by sleep. The rushing sound in the ear has decreased. With advancing improvement, however, the tolerance of the tart. emet. decreased, so that now three pills produce nausea. I therefore reduced the dose to two, seven times daily. This was followed by two or three stools daily.

13th Nov. The pain of the head has abated so much that the patient is but little annoyed by it. The eyes are lively, the pupils are no longer unequal, and the power of sight of the left eye has improved. The mental powers have equally improved ; memory has returned, and the countenance shows new life. The issue is running freely, and,

owing to the copious discharge of fetid pus, it has to be dressed several times daily. The appetite continues good, but the patient complains a little of sourness in the stomach, on account of which I ordered a drachm of *sapo medicatus* to be added to the pills.

16th Nov. The sour eructations have ceased, the sound in the ears is quite gone, and the pulse is fuller and firmer. The tolerance of tart. emet. has, however, again decreased, and I therefore decrease the pills to two, five times daily,—say five grains.

18th Nov. The patient had taken two pills fasting, as the tart. emet. thus produced much less nausea and vomiting: I found him, on my visit, in the act of vomiting. I asked him whether the vomiting produced headache; he assured me that his head was always rendered easier by the vomiting. The soft and weak pulse pretty clearly indicated the depressing effect of the tartrate on the vascular system.

The nights are now tranquil, and the patient feels hardly any headache. He can now attend to his business once more. The issue causes much pain, and he dislikes it very much, and would gladly dispense with it, but I counsel him against this.

He now began to go out of doors, and to his astonishment he found, that though born in the city, he had forgot the names of all the streets, and the right way through them. In reply to his inquiries, when the name of any street was told to him, he again recollected it, and in this manner he learned anew his way through the city. In two days more he seemed to be quite recovered, for he was now altogether free from headache. Regardless of my warning, he shortly allowed the issue to dry up, as he fancied himself perfectly restored, and did not understand the treacherous nature of his disease.

On the morning of the 28th January following, after a rich supper the night before, he had a severe apoplectic fit. He was bled instantly, and six leeches were applied to the head. Consciousness to some extent returned, but it was soon perceived that he had lost his speech, and did not correctly know those about him. As on the following day the head pain again set in severely, six more leeches were applied on the left side of the head, and a blister to the neck, a footbath was also used, and he did not oppose the renewal of the issue. The bowels were again sluggish, and had to be moyed by purgatives and tart. emetic.

Under this treatment the condition of the patient continued almost unchanged, especially as to the head pain. The speech was difficult

and stammering, and the patient could seldom find the right words ; but periodically speech was better. As the pulse showed no remarkable tension, I administered some weak infusion of arnica, and the speech seemed slowly to improve until 25th February, when another apoplectic fit occurred, in consequence of which not only was the speech wholly lost, but also the power of recognizing his friends.

I now doubted the possibility of restoration, as the disease seemed to have penetrated deeper into the brain, and to have become disposed to assume an epileptic form. I therefore again ordered leeches, and had the issue, established on the old place, and stimulated to discharge by an irritating salve. Inwardly I gave again the tartrate, but it was not well borne, and I could not go beyond five grains. The headache persisted, but was more moderate. On 4th March, he had another attack, but less severe ; his speech was again affected.

From this time his condition seemed slowly to improve ; but on 27th May he apprehended that another attack was at hand, as his speech was suspended, and spasms threatened. His wife wished to give him speedily a little spirit of sweet nitre, but through mistake she gave spirit of sal ammonia. He had no sooner swallowed a little of it than the threatened attack seemed to be cut short ; his speech was instantly restored, indeed the difficulty existing in it prior to the attack was totally gone.

From this time forward the head-pain gradually receded, whilst the issue continued discharging ; no more apoplectic attacks occurred, and his mental powers were free. Now, however, a quarter of a grain of the tart. emet. was sufficient to produce nausea. I allowed the issue to remain until the following summer, in August, when it closed spontaneously, without any bad result following.

In the succeeding winter, he was attacked with pain in the breast and difficulty of breathing ; but these symptoms yielded speedily to venesection and demulcents ; and no pain of the head or other brain affection appeared. He resumed his place in his office, and he felt no difficulty over accounts, or in close thinking, neither did he feel fatigued by them. He slept soundly, and without dreaming.

He continued to enjoy unbroken sound health for 20 years, when, in January, 1852, he again suffered an epileptic attack, which was preceded by a feeling of heaviness in the head. The speech was not impaired by this attack, nor was the headache reproduced. I ordered blood-cuppings on the neck, and afterwards placed an issue there ; besides these measures I regulated the bowels, and corrected his diet,

which had been too rich. From that time to the present, 1860, he has been quite well.

We learn from this case how decidedly powerful in Pachymeningitis derivative remedies are, the local efficacy of which is explained by the connection between the vessels of the dura mater and those of the pericranium. When, however, chronic inflammation of the pia mater and arachnoid exists, without adhesion to the dura mater, though these remedies are not to be rejected, yet they act less powerfully.

This case very clearly shows that inflammation of the dura mater is a very tenacious disease. The last attack, 20 years after recovery, obliges us to think that residues of the disease are still present, in the parts once occupied by it, which we may regard as an extinct volcano, from which probably through a strong congestion, a reflex action on the medulla oblongata was produced, which manifested itself in the form of an epileptic attack.

The psychical symptoms in this case are also well worthy of attention. Probably the inflammation had spread over the pia mater, and thus produced functional impairment in the cells of the cortical layers, and in consequence loss of memory resulted, and at a later period, difficulty of speech, but as yet without textural alteration. The direct passage of the arteries into veins, in the pia mater, was here also attended with the result, that the severest storm passed over the patient. As the patient when he first recovered no longer could find his way in the city, though his mental faculties were otherwise unimpaired, we may venture to assume that in a portion of the cells, function was disordered, without any influence being thence exerted on the other faculties.

It would seem too that defect of memory was only an unimportant weakness, since a moderate stimulation, namely the renewal of a former impression by hearing the names of the streets, sufficed to reestablish the function. In the subsequent attack this symptom was not present; but to avoid any error will not be useless.

The operation of the volatile ammonia was certainly very remarkable, for not only was the epileptic attack cut off in an instant, but the speech and memory also were reinstated. I have never since met with the same result, although I have often tried the same remedy in epileptic attacks. The result, however, proves to me that the cells had been impaired in their activity, and were at the same time in a paralyzed condition, which through the volatile irritant was instantly removed. I find also in the fact, a demonstration of my proposition, that the brain substance is not directly very excitable, and that it withstands, for a long time, inflammation and degeneration in itself.

This case also leads to an instructive conclusion as to the operation of the tart emetic. Its depressing influence on the heart and brain, even in vomiting, appeared in a convincing manner, and the cerebral congestion itself appeared to be controlled by it. Probably, however, we must proceed to some degree of saturation by the medicine, before we can expect this result. Should vomiting be produced by the first dose, then in all probability the congestion would rather be increased, than diminished.

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This case also leads to an instructive conclusion as to the operation of the tartar emetic. Its depressing influence on the heart and brain, even in vomiting, appeared in a convincing manner, and the cerebral congestion itself appeared to be controlled by it. Probably, however, we must proceed to some degree of saturation by the medicine, before we can expect this result. Should vomiting be produced by the first dose, then in all probability the congestion would rather be increased, than diminished.

Lastly, this case admonishes us that we should not decide upon a syphilitic underlying cause, from nightly exacerbations of pain, without further evidence.

EIGHTH CASE.—For the accurate clinical history of this case, I am indebted to my friend, Dr. Roelandt, in Rotterdam, by whom I was called in consultation on it.

A wine merchant, named Van K., a man of fifty years, of slim growth, and the so-called lymphatic temperament, had hitherto, from his temperate habits, enjoyed continuous good health. In the year 1854, however, he suffered from furuncles. One of these formed near the eye-brow, two others on the inside of the nostrils, and one of these was preceded by disagreeable twitchings. Under appropriate surgical treatment, he was relieved without any further disturbance of his health, although two more small furuncles followed. In the first four months of 1855, various disagreeable sensations in the head, occurred; a feeling of pressure, a sensation of unpleasant thrilling sounds, weakness of sight in reading and writing, drowsiness, irritability, imperfect apprehension in close thinking. These symptoms gradually increased until, in the first half of June, headache set in with more intensity, and in the two following months became slowly worse. In the first period the headache occurred in the morning. He could not then look after his usual business. He would sit still and grasp his head with both hands, and now and again fall asleep, but the headache would afterward sometimes be worse, and sometimes, after longer or shorter duration, it would cease, to return again at an indefinite hour, by night or by day, and under the most various circumstances. The bowels were sluggish, and to relieve them, domestic remedies and a suitable diet were employed. Notwithstanding his great sleepiness, he was not refreshed by sleep; indeed, the headache was rather stronger on waking. Why the attacks of pain came, and why they went away, was undiscoverable. From coughing and sneezing the pain was increased.

He assigned, as the seat of pain, the forehead; from this part it spread, when it increased, over the temple as far as the neck. On the first appearance of this pain a disagreeable twitching in the nose had set in, as had occurred twice before in the development of nasal furuncles, and in consequence he expected another one now. Instead, however, of this, the pain of the head, in irregular paroxysms came, and no more withdrew.

The objective symptoms of the disease were the following: 1st. Paleness of the face; a dull and peevish expression of the eyes, which were weakly injected; low temperature of the skin, especially

of the limbs; elevated temperature of the head, especially on the forehead and crown. 2d. In standing, the patient had not his wonted energetic port; he would rather sit, supporting the head on his hand; in lying, every movement was wearisome. 3d. The pulse was rather unfrequent, (54 to 56), sluggish, small, and easily compressed. 4th. Respiration was tardy. 5th. Innervation is low in this case, as may be inferred from the psychical and sensual functions, and from the vegetative also. In the muscles of the legs reflex movements frequently occur, even during sleep.

The diagnosis at the first visit was obscure. On account of torpidity of the bowels, on 13th and 14th July, small doses of extract aloes were ordered, which operated, and the pain of the head remained longer absent in the morning. On 15th July, six grains of tart. emet. in six ounces of water, were prescribed, by which nausea and a copious outclearing were produced. Nothing further was ordered until 24th July.

The patient observed that for six hours daily, from ten in the morning till two afternoon, he was free from headache, and could apply himself to business, but that through the remaining eighteen hours his condition was as already described. It was thought that he might have a masked intermittent, and accordingly he was ordered, R. quinae sulph., 3 ij, extr. liquirit. 3 ij, fiant pil. no. 40. Take 2 pills hourly whilst free from the pain.

The headache passed off, and a natural and tranquil sleep followed, and after the 2d August he quit taking the pills. The recovery however was of short duration, as on 8th, the former state of the patient returned. It was then believed that he had a recurrence of the intermittent, and quinine was again ordered, but this time without any result. The symptoms became worse, and no longer presented any appearance of an intermittent.

The patient was advised to use shower-baths, but they had no sort of effect. Six leeches were applied behind the ear, and free after-bleeding followed, but no improvement resulted; indeed all the symptoms became rather worse, and the headache more lasting; his sleep was more soporose, and he always awoke with severer headache; the reflex movements of the legs became more numerous; on one occasion dilation of the pupils was observed, but it was only transient. The manifest congestion in the head, and the blood stasis, demanded powerful derivation. On 29th August he was ordered,

R tart. emet. gr. 6, mucil gum Arab., aq. naph. ana Unc. j. aq. destill, Unc. 6. 1/4 a tablespoonful every hour.

On 30 August, this solution was repeated. On 31st an infusion of senna, with anima rhei and 6 grains tart. emet., was ordered; and in addition cold ablutions to the head, and sinapisms to the calves of the legs. Copious stools followed.

On 1st and 2d September the same means were continued, and for the first time a free watery vomiting, with bilious intermixture, took place. This was followed speedily by comfortable repose and relaxation, tranquil sleep, and waking without headache, moderate temperature and moist skin, improvement of the sluggish pulse, and abundant evacuation of urine. The patient felt himself decidedly better, and hope of recovery was now entertained. In order to keep up the derivation, a blister was placed on the neck.

But soon again the vanished symptoms showed themselves. On 3d October the disease reappeared in a more decided form than before. Extract of aloes was given in increased doses, but without effect. The symptoms became but more aggravated, the patient fell into complete lethargy, the forehead felt warm, and above the eyebrows was markedly red, the pulse sank to 50 beats.

On 6th Sept. I was called in consultation. I found the patient as stated, and quite unconscious. I diagnosed Pachymeningitis. I caused four leeches to be applied in the nose, and advised that, as much as possible, after-bleeding be promoted; and as the tart. emetic is better borne, and in larger doses, in form of powder or pill, than in solution, I ordered, R. Tart. emet. gr. 9, Saech. Albi. dr. 3. Divide in partes aequales 9. One powder every hour.

I also advised that the sore part of the neck should be brought into free suppuration, and that cold ablutions be applied to the head, and sinapisms to the calves of the legs, and further that an enema be administered. The enema produced a copious evacuation, followed by five watery yellow stools. The leechbites bled freely. The patient, in the evening, was already better; he was conscious, the pulse had risen to 60 beats, and the skin felt warm; the urine was no longer dark looking. The night passed quietly, and during it the headache passed off. August 7th the pulse was 66, and the patient enjoyed himself a little. The powders, the sinapisms, and the enema were repeated, and the discharge from the neck was promoted. In the evening the pulse fell to 62, and was small. The patient lay bent forward on his side; he manifested on some things false concep-

tions, and assumed a very commanding tone. I had made the remark that after the subsidence of the symptoms, a recurrence might be looked for, and therefore six leeches were placed on the forehead, and after-bleeding was promoted by elastic cups, so that about five ounces of blood were drawn. After this, tranquillity took place, and the patient had a quiet night.

8th Sept. No trace of headache; the illusory ideas have vanished, the head and other parts of the body have the normal temperature; the pulse is full, with 50 beats in the minute; the tongue is less coated, and is more moist; the restlessness and the reflex movements of the legs are no longer observed. The powders were repeated; and an ounce of castor oil was ordered to be taken in two parts.

9th Sept. The night has passed quietly. The psychical functions are all right, excepting that some disturbance of the memory, and of computation of time, is observed; the headache has kept off. The powders had caused no nausea, and were therefore continued. Towards evening the patient became restless, and was with difficulty kept in bed. The urine showed a cloudy deposit.

10th Sept. The sleep has been sound, the breathing groany with sobbing. In the morning much urine was passed. The pulse was more developed, and the temperature a little elevated. Chewing and swallowing have become difficult, and the patient refuses food; in the evening he strongly opposed the taking of the powder. An enema produced but little effect.

11th Sept. The night has been quiet. The pulse varied from 55 to 65. He resisted the powder obstinately. At the second visit the continuance of the Tartrate was opposed, and it was ordered in smaller doses, viz: R. Tart. emet. gr. 10, Extr. Hyosc. scrup. 1, Extr. Liquir. dr.  $\frac{1}{2}$ . Fiant pilulæ, No. 30. One every second hour.

Up to the 15th September his condition was good, indeed he improved daily. The headache had entirely passed away; the judgment, and the state of the feelings, with exception of a trivial excitability, left nothing to be wished for. The sleep was quiet, and free from dreams, which up to this time had always been frightful. The pulse had 70 beats per minute. The patient was able without difficulty to leave the bed for a short time. The tongue had a grey coating, and appeared swollen; the appetite was, however, quite good.\*

\* This often occurs in maniacs and indicates a continued irritation.—*Translator.*

The Tartrate was, under these circumstances omitted for two days, and the tongue assumed its natural appearance. On 13th an enema was given; also an ounce of lenitive electuary with four grains of extr. hyoscyami.

16th Sept. The patient is to-day in a much altered condition, and the hope of recovery has for the third time been blighted. On the previous evening the hands had gradually become cold, as in the former relapses, and next the headache returned, and the night was not, as the previous one, passed comfortably; in short, every thing pointed to a return of the former unpromising condition, and it was believed that the evil must be charged to faults of diet.

The patient lay listless, and suffering from headache in the old place. The skin temperature was low, and unequal; the heart beat 60 in the minute. As fresh congestion and inflammation were to be feared, four leeches were placed on the forehead, and the after-bleeding was promoted by elastic cups. Sinapisms were applied to the calves of the legs and the soles of the feet, an enema was given, and lastly lenitive electuary with the tartrate.

17th Sept. The night has not been very restless. The headache was less severe, but now and again some marks of mental aberration were noticed, and great inattention and peevishness existed. The appetite was good, and the bowels were regular. At the evening visit the patient declared he was free from headache, and he had again slept comfortably. The heart beat 60 per minute. The tartrate was taken without opposition.

18th Sept. In the night a thin, but not copious stool. The aspect of the patient is not so good; he has a suffering appearance, a cool dry skin, pulse 57, more headache, and his whole bearing forebodes evil. Six leeches were placed on the forehead, and after-bleeding was promoted by cups. Tart. emetic without hyoscyamus was given, also an enema, and cold ablutions were ordered to the head.

As these dangerous relapses constantly recurred, his physician came to the conclusion, that he had to deal with a specific inflammation, the result of furuncular dyscrasy, with which the disease set out, and which, though repelled by powerful antiphlogistic means, might as yet not have been removed. He therefore decided on the employment of corrosive sublimate, as a remedy which destroys morbid germs, and which, according to his experience, had proved most efficacious in severe external inflammations, which, for weeks long, had resisted the most potent antiphlogistic measures. He ordered, R.

Merc. subl. corros. gr. 1, Sacch. albi dr. 4. Divide into 24 equal parts. One powder every three hours.

The physician felt the more disposed to this remedy, since the bleeding this time did not produce the least benefit; the symptoms rather indeed became more severe.

I had been absent some days, and was now again consulted. I had nothing to say against the small doses of the sublimate, but I did not expect much from them.\*

On 19th Sept. the condition was much the same. The pulse was 48. The patient was quite indifferent and apathetic, and under the least motion, pain in the head took place. A little food, taken at noon, was vomited. In the evening two leeches were applied in the nostrils.

20th Sept. After the application of the leeches, the patient was better, and had a better night. An enema had operated freely; no more vomiting. The pulse has risen from 44 to 56, the headache is moderate, and the patient is more conscious—copious urine. The sublimate was continued.

From 21st to 23d. Favorable and less favorable symptoms interchanging; the latter, however, predominating.

24th Sept. The patient has become much worse, and the hope of a favorable issue is now still fainter. Though no decided exacerbation of the headache has occurred, yet there is manifestly less power of feeling, and blunted sensibility and indifference probably hinder manifestation of pain. The patient speaks not so well as formerly; now and again he brings out a word with trouble. He may have the power of sight, but he does not seem to apprehend the visual impressions. Day and night now seem to be to him the same. The difference between sleeping and awake is merely apparent. Food is now hardly at all taken, and drink but seldom of late, too, decided general emaciation has appeared, the cause of which may be the weakened operation of the nervous system on the vegetative function as likely as decreased supply of food. The adynamic character of the disease is more and more declared, and the depression of innervation, in the absence of all paralytic symptoms, seems to indicate recourse

\* This remark of Van der Kolk is hardly what we might expect from a person of so much generous feeling as we believe him to have possessed. It was surely full time, after a period of several months treatment, and six weeks persistence in the tartar emetic without any positive gain of ground, to review the case and shape some change of treatment.—*Translator.*

to stimulants. For this reason infusum flor. arnicæ (1½ dr. in 6 ounces,) was ordered, but at the same time the sublimate was continued. An enema was also given. Towards evening still farther depression took place and a large blister was placed over the whole forehead, as far as the temple and the crown of the head.

25th Sept. The night has been quiet. He sobbed occasionally; the pulse is somewhat stronger, but beats only 40 in the minute; the skin temperature is more natural, and swallowing less difficult, than on the following day. The exhibition of arnica was, on account of the skin temperature, omitted.

26th Sept. In the night severe, but only short continued, headache occurred. The intelligence is very low, and only powerful impressions act on the sunken vital condition. The pulse has advanced from 40 to 50 beats. The patient swallows with difficulty and reluctance, and when he tries to speak, the single word seems to stick in the throat; and but seldom, now, lucid intervals of the speech-faculty occur, when he says something spontaneously with ease. He rather seems to sleep, than to be asleep. As the blister had not yet risen, another was put on. An enema also was given.

27th Sept. The urine has, for the first time, a strong deposit, which, however, did not appear the following day. The lachrymal glands discharge copiously, and the fluid collects between the under eyelid and the bulbus, and also in the inner angle. This continued also through the next day.\*

The tongue is moist, and appetite has returned. The same medicines were continued.

28th Sept. On the whole, the condition is cheering; the breathing is good. Up to this time 3½ grs. of sublimate have been taken, without appearance of salivation. The skin temperature was always heightened by the arnica. The patient will positively take no more of it.

29th Sept. During the night he has been pretty tranquil. The condition is on the whole unchanged. The sublimate is now given in only half the dose.

30th Sept. The morning condition was still the same; in the evening, however, a favorable change took place. The patient unexpectedly rose up, spoke freely, ate and drank with appetite, and was

\* Surely the author could hardly regard this symptom as of any clinical value. It would be strange indeed if a blister in the forehead did not stimulate the lachrymal glands.—*Translator.*

not so exultant of this improvement as he was of the former ones. He spoke quite sensibly of the danger which had so long hung over him, and seemed to be correct in everything. He felt quite well, had 50 pulse-beats in the minute, and was free from headache.

1st Oct. The night has passed pretty comfortably; no headache, no disturbance of the mental functions. Pulse 50. The bowels were moved by lenitive electuary, and the sublimate was continued.

4th Oct. The vesication has passed off, and is now kept running only as an excitatory, in a half-moon form, on the frontal protuberances.

From this time the improvement went on day by day, all the unpleasant symptoms disappeared, and the headache also. The dose of sublimate is now given at  $\frac{1}{2}$  gr., and at intervals the lenitive electuary is administered.

13th Oct. The excitatory is doing well; the sublimate is to be discontinued. A small furuncle has appeared on the forehead, the result of skin irritation. No appearance of salivation. The diet was ordered to be strong. For some hours each day the patient left his bed, as convalescent. This improvement advanced uniformly. On the 8th of November the pulse was 82, and regular; the emaciation was decreasing, and he was able to do some business.

From the above time to the present, (1861,) the man has remained constantly well. Nothing troubles him, except that the exhalation from the wine in his cellar is rather unpleasant to his head. The headache has not, however, returned. It may well be said that in the obstinate fight with fierce contending death, a signal victory has been achieved.

This case most convincingly demonstrates how obstinate and treacherous a disease Pachymeningitis is, and to it seems to appertain the peculiarity of repeated relapses, with increasing severity.

That the inflammation of the dura mater had passed over to the pia mater, is pretty clear.\*

\* The proof, to the author's mind, that the inflammation had passed over to the pia mater, must be sought for, (as it was by him mainly derived,) in his theory of insanity. The psychological symptoms in the case satisfied him that the pia mater was involved in the disease. We may venture to doubt whether, had this been the fact, the victory over which he landably exults, would have been gained.—*Translator.*

The case teaches us that, in paralysis of some of the brain functions, among which we may reckon on the very difficult swallowing observed towards the conclusion, we should not always hold that disorganization has taken place; and the same may hold good with respect to the aberration of the mental functions.

As the congestion and inflammation advanced to the cortical layers, and even to the deep parts of the brain, functional disturbances were exhibited, but the disease had not gone so far as disorganization. We have here, then, a new proof that the brain substance is tardy in taking on inflammation.

It is remarkable that in the outbreak of the disease, the attacks seemed to commence with a fixed type in the symptoms, and to yield to quinine. After progress, it was otherwise. I have been led to refer to another case, in which I was called in, and in which the severe headache yielded to quinine. After a couple of days the headache returned in periodic attack, and although I conjectured an existing Pachymeningitis, I decided on repeating the quinine, in conjunction with leeching, and a blister to the neck. This patient lived out of the city, and on my second visit I found him moribund.

Dr. Roelandt's case further shows, that leeches ought to be applied as near as possible to the affected part. Leeching and a blister on the neck, in the beginning of the treatment, had done no good—on the other hand, leeches on the forehead, (except, I must confess, the last time,) and still more, the leeches in the nose, because of the direct derivation from the affected part, did good. Had the inflammation been more in the posterior region of the head, then blood cuppings of the neck would have been more suitable.

The benefit of intense derivation in the vicinity of the diseased part, was here fully established. I cannot ascribe the cure to the small quantity of the sublimate taken by the patient. During the employment of this medicine, his condition was bad enough. When the large blister, covering the whole forehead, operated intensively, then, first, the inflammation of the dura mater, with all its train, passed away.\*

The curative powers of such derivatives, as well as the powerful depressive action of the tartrate, have been experienced by me in two cases, which I will here allude to.

A woman had Pachymeningitis with severe pain; epileptic attacks gradually presented. Leeches were repeatedly applied, and an issue on the top of the head

\* It is doubtful if many of Van Der Kolk's readers will ascribe so little value, in this case, to the corrosive sublimate, or so much to the leeches in the nose. As to the disappearance of the headache after the blister on the forehead, it was a very gratifying fact; but it may be questioned whether it would be found a constant one in similar cases. It is to be remembered that the headache is recorded to have gone off completely on several occasions in the progress of the case. What prevented its return on the last occasion? That salivation was not produced by the mercurial is no proof that it had not produced an important alterative effect; and if this effect was produced, certainly it was the most important part of the treatment. The author tells us that the patient's condition during the exhibition of the sublimate "was bad enough," (schlimmgenug.) This is very true, but this bad condition existed before the use of the sublimate, and did not improve for some time after. Certainly the long continued use of the tartar emetic had much more to do with the creation of the patient's "bad condition" than the sublimate; and it is very unfair to charge the latter with the "bad condition" existing at the commencement of its employment, even though this condition appeared to become worse for a few days.—*Translator.*

was kept open more than a year, and produced a perfect cure. A purulent discharge spontaneously arose in the nose, and her condition improved under it.

The second case occurred also in a woman; the inflammation of the dura mater and the severe pain, which had been mistaken for rheumatism, were here presented above the left ear.

An issue, which suppurated freely, was established, and this aided by repeated application of leeches, brought the long-wearing disease at last to a favorable termination. On more than one occasion it was accompanied by cerebral symptoms. A purulent otorrhea took place in this case, but left no deafness behind it. In both cases several marked relapses took place.

According to my experience, which has not been limited to the preceding cases, idiopathic Pachymeningitis, in which neither external injury, nor syphilitic disease, underlies, is by no means to be regarded as of so infrequent occurrence, as we find stated in authors. I believe the disease is generally mistaken, and, owing to the regular intermissions, it is regarded as a masked fever, (febris larvata,) or more generally, perhaps, as cephalic rheumatism.

At the first glance, it may appear strange that this inflammation should signalize itself by such intense painfulness. Let us however reflect, that the dura mater cerebri consists of two membranes, the outer of which represents the periosteum, with which the dura mater proper is united. The dura mater has this great painfulness under inflammation, in common with the periosteum on other bones. The dura mater of the vertebral canal, farther separated from the periosteum,

has, according to my experience, much less pain under inflammation, than the dura mater cerebri.\*

Degenerations, ossifications, and even inflammations of the falx cerebri, appeared in two cases which I met with, to run their course without severe pain. In the spinal canal indeed, an isolated inflammation of the dura mater seldom occurs, and consequently, we have few distinctive observations on this form of disease. At all events, I have not observed the occurring pains in such severity; but it is possible they may have proceeded from other parts.

If the disease takes a chronic course, during which the dura mater becomes inseparably adherent to the skull, then the severe pains do not always occur. So it happened with the old man of 72 years, in whom the skull could not be separated from the dura mater, and yet no headache had been present.

The intermittence, which sometimes as in intermittent fever, presents itself in definite periodicity, though mostly irregular in this respect and with longer free intervals, is very peculiar.

The accordance between the dura mater and the periosteum of other parts, is in this instance, again manifested to us. In periostitis the pain generally occurs most strongly during the night. In other authors mention is also made of the intermittence of the symptoms of this disease, (inflammation of the dura mater.)

We find numerous observations of the sort in the celebrated work of Lallemand (*Recherche sur l'encephale, etc.*)

\* I have had under treatment a case of inflamed dura mater spinalis, which certainly had as severe painfulness as any of the cerebral order could have.—*Translator.*

In every acute cases, however, these intermissions appear to fail, or perhaps, occurring at the outset of the disease, before the medical treatment commences, they may not be observed.

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  1. The operations of the New Jersey State Lunatic Asylum, for the year 1865, were as follows: Patients remaining Dec. 31, 1864, 333; received during the year, 196; total under treatment, 529; discharged, recovered, 72; improved, 53; unimproved, 4; escaped, 2; died, 31.

Total, discharged, 162. Remaining, Dec. 31, 1865, 367.

We learn from Dr. Buttolph's Report, that the Asylum has accommodations for 300 patients. Sixty-seven more than the proper number, it appears, were in the house at the close of the year. Dr. Buttolph is fully aware of the objections to over-crowding, both from hygienic considerations and the impossibility of a proper classification. He has acquiesced, however, in this excessive accumulation from the urgent desire manifested by the public authorities and by the friends of the insane to have them received into, and retained in the Asylum, if not fully restored; and also from the prospective completion of additional buildings for their accommodation at no very distant day. By the enlargement alluded to the capacity of the Asylum will be increased to five hundred patients, which, the Doctor thinks, will meet the requirements of the State for several years to come, and will accommodate as many patients as it will be advisable to assemble in one institution.

The facts relating to this enlargement of the Asylum are highly creditable to the Legislature of the State, and go far to support Dr. Buttolph's assertion that, "probably in no State in the Union is the standard of public sentiment in this respect—appreciation of the ability of the institution to serve the public and readiness to improve its advantages—higher than in this." It is certainly a matter of congratulation that the Legislature was too wise to authorize a policy, recommended by the Managers of the Institution, permitting the discharge of incurables, and thus perpetuate the poor house system of provision with its well known enormities. The following extract from the Managers' Report will be read with interest:

At the last session of the Legislature, the managers in view of the crowded state of the Asylum, and the impossibility of admitting new patients, likely to be benefited by a course of sanitary treatment, applied for the passage of a law authorizing the managers to discharge patients deemed incurable, whenever the interests of the institution might in their judgment render it expedient. The Legislature, however, deemed it more advisable to enlarge the buildings, and passed an act appropriating sixty thousand dollars (\$60,000) for the erection of wings of sufficient capacity to accommodate one hundred and twenty additional patients, sixty of each sex. The Superintendent procured plans for the erection of a wing at each end of the old building, consisting of three sections forming three sides of a hollow square, which if carried out and completed, will afford accommodations for two hundred patients, or eighty more than was contemplated by the law of last winter. The female department being more crowded than the male; the managers conclude first to erect the wing at the end occupied by the women. Of this wing two sections are enclosed, and the foundation walls of the third raised to the surface of the ground, and securely covered so as to protect them from the weather. The last section can either be pushed forward to completion during the next summer, or the foundations can be secured and remain in their present condition until such time as the Legislature may deem it expedient to finish it according to the plan adopted. If both wings are built upon the plan and of the dimensions proposed, it will be necessary for the Legislature to increase the appropriation for the erection of the buildings to at least one hundred thousand dollars (\$100,000).

The managers were led to adopt the plan above mentioned, as it combined more advantages than could be secured in any other way, and the buildings when thus completed, will furnish ample accommodations for five hundred patients, quite as many as should ever be assembled in one institution. So that any further enlargement in addition to that now contemplated will never be advisable. The managers desire to submit the whole question to the decision of the Legislature, who can in their wisdom either increase the appropriation or direct the proposed extension be curtailed. The managers would respectfully request all the members of the Legislature personally, to inspect the present building as well as the plan adopted for the extension, so that they may be enabled to decide the question with a due regard to the best interests of the institution, and of that unfortunate

class for whose benefit it was founded. Of the appropriation made by the Legislature, but nineteen thousand dollars (\$19,000) have yet been drawn by the Commissioners appointed to superintend the erection of the buildings; the whole of which has been expended. The interior work on the sections now enclosed will be prosecuted as rapidly as possible during the winter, and the wing for the accommodation of the men commenced early in the ensuing summer, if the necessary appropriations are made for that purpose. The planning of the building and supervision of the work in all its details have been performed by the superintendent without the employment of an architect, thus saving very considerable expense to the State, but at the same time increasing in a great degree the arduous labors of the head of the institution.

2. Dr. Rodman, of the Western Kentucky Lunatic Asylum, furnishes the following statistics concerning the operations of the institution under his charge for the year ending October 10, 1865: Remaining at date of last report, 123; admitted since, 59. Total, 182. Recovered, 18; died, 19; eloped, 1; unimproved, 1. Total, remaining, 143.

We learn from the Report that the institution has had increased facilities for the accommodation and treatment of the insane during the past year, by the completion of two wards which are being rapidly fitted up, and that additional wards are in process of construction. With these facilities Dr. R. hopes that it will now be long before he is called upon to refuse applications for the admission of any that are fit subjects for Asylum treatment; and makes the following pertinent remarks touching the early treatment of the insane, which are borne out by the experience of all:

Asylums built by the State are rarely or never erected until the most imperative necessity compels. The claims of the insane are ignored until their numbers are so great that provision for their wants

becomes a necessity no longer to be overlooked, and society clamors for protection from the dangerous violence of the excited lunatic.

After the establishment of a hospital has been determined upon, some years usually elapse before its completion, during which time those awaiting admission fall into irremediable disease of both body and mind, and, when received, afford but small prospect of long life, and none of mental restoration. This accounts for what otherwise might lead to unfavorable comparison of the results obtained in new hospitals and in those that have existed long enough to absorb the chronic element of the insane population, and to receive only such as afford a reasonable prospect of restoration.

The following remarks of Dr. Rodman made in anticipation of the probable visit of cholera, are pertinent, and we commend them to the careful consideration of all similarly situated :

In view of the possibility, or rather probability, of an invasion of cholera, I am now taking steps to put the Asylum in the best possible order to resist it, which is done by perfect cleanliness of grounds as well as house, and by such means as will bring our patients up to the highest attainable condition of general health, which is, after all, the most reliable safeguard against all diseases. I trust these objects have never been lost sight of; but anticipated trouble makes us more keenly alive to our duty, and acts as a powerful incentive in the furtherance of such hygienic precaution as will render us less liable to reap the bitter fruits of neglect.

3. The general statistics for the two years embraced in Dr. Stribling's Report are thus stated :

Number of patients in Asylum at the commencement of the two years, 331; admitted subsequently, 93; total under treatment, 424; discharged, recovered, 41; improved, 7; unimproved, 1; eloped, 1; died, 66; remaining, 307.

The attention of the Governor is called to the large number of patients—111 in the last two years, of which 96 remain in the institution, from the State of West

Virginia; and the desire is expressed that some arrangement may be made with the latter commonwealth for their support for such time as they may be permitted to remain in the Asylum. Dr. Stribling thus alludes to some incidents of the past:

During most of the period embraced in this report, the institution was, of course, exposed to trials and difficulties incident to a state of war, and its inmates subjected to privations, in common with families and individuals all around us. The blockading of ports, demands for the sustenance, etc., of the armies, activity and vigilance of impressing officers, depreciation of the currency, and the partial failure of crops, conspired to render it, at times, almost impossible to procure food and raiment. Groceries and other supplies, usually deemed *essentials* in the domestic economy, assumed the place of *luxuries*, and these latter utterly disappeared. Thanks, however, to a kind Providence, the efforts of those upon whom devolved the labor of procuring supplies, were so far blessed that we do not believe a single member of our extensive household suffered at any time with hunger or cold. It was most gratifying, also, to witness with what cheerfulness all (with but few exceptions) submitted to the necessities of their position.

The nature and purposes of the institution seemed, throughout the protracted strife, to be recognized and appreciated by the contending hosts. The grounds and inclosures were for the most part unmolested, the buildings carefully guarded, and the privacy of occupants thoroughly protected. We regret exceedingly having to record the following exception: On the 4th of March last a detachment from General Sheridan's command made an assault upon the meat house, flour house, store room and other out buildings, bearing off and destroying about 180 barrels of flour, 10,600 pounds bacon, 300 bushels corn—a considerable quantity of hay—135 bushels rye and oats—wagon and carriage harness—50 pairs coarse shoes—many articles of wearing apparel from the laundry, and 3 valuable mules. I promptly and earnestly announced to the officer in command the character and object of the institution, cited the number of the unfortunate insane under our care, apprised him of the difficulties we had encountered in obtaining these supplies, and the danger that, if removed, they could not be replaced—but without avail! It is gratifying to add, that none of this party ever intruded within the build-

ings occupied by patients of either sex—a happy circumstance! for which I felt well assured, from *careful observation*, we were more indebted to the forebearance of the privates than to any restraints imposed by their officers.

4. Dr. Choate reports 363 patients remaining in the State Lunatic Hospital, at Taunton, on the 30th September, 1864: admitted since, 197; making a total of 560 under treatment for the year ending September 30th, 1865. There were discharged, recovered, 89; improved, 44; unimproved, 48; died, 32; remaining, 343.

Dr. Choate refers to an experiment about to be made, on a small scale, in the State of Massachusetts, with an Asylum for the incurable State-patients.

In view of the fact that the number of lunatics to be provided for by the public institutions of the State is already largely in excess of their utmost capacity, the question has been seriously agitated, whether a certain class of those dependent upon the State for maintenance might not be cared for in a cheaper institution; and the experiment of doing so will soon be tried on a small scale in the new building in the process of erection at Tewksbury. Without doubting in the least the abstract principle, that a first-class institution presents advantages nowhere else to be obtained by any class of the insane, and that it is somewhat dangerous to lower the standard of provision and care for any portion of them, yet, as a practical matter, and upon the principle of doing the most good we can with the means at our disposal, the wisdom of removing a portion of the harmless and incurable State patients to an institution where they can be provided for more cheaply, cannot, I think, be doubtful. If they are suffered to remain in the hospitals, they injure their operation, and cripple their curatives influences; if they are placed in the almshouses, they and the ordinary inmates exert upon each other a reciprocal influence the most injurious. To build new first-class institutions for them would swell still further the already extraordinary demands upon the public purse. The experiment which is about to be tried seems, therefore, to be called for, and will, it is to be hoped, prove successful. We have the expectation of removing during the coming year, to the new receptacle, such a portion of our harmless incurable State patients as

may seem to be our proportion; which will undoubtedly further increase the usefulness of this institution.

Dr. Choate thus remarks upon the causes of insanity:

Inasmuch as persons who have once been insane are too apt by the injustice of the world to fail to regain that social and useful position which they before held, it cannot be doubted than the study of the prevention of insanity is more important than the study of its cure. And in entering upon this study, the first point, of course, is to learn the causes of the disease. In preceding Reports much has been said concerning its exciting causes, and the power which individuals generally have, by a proper regulation of life, to ward off its attacks. Although they do not appear in the foregoing table, there can be no doubt that the study of the predisposing causes is equally important with that of the immediate and exciting. In the large majority of cases, the system is previously prepared to yield to the exciting influences undoubtedly stands hereditary predisposition. The question whether any near relatives have been insane, is comparatively seldom answered in the negative. The inquiry as to how hereditary tendency is formed, is the most important one in connection with the whole subject of insanity. That hereditary predisposition, like the large portion of the exciting causes, is originally within the control of the individual, and is produced by some violation of the laws of nature, seems in the highest degree probable. Indeed it is by no means unlikely, that the same causes; the same violations of nature; the same wrong way of life, not carried far enough in the first generation to excite disease, may in the second or third or farther on, the same tastes and habits being transmitted, be finally sufficient by accumulation to produce it, or to produce in a whole family a condition of the constitution which will make them an easy prey to slight exciting causes of disease. And in this manner a man's sins and errors may most emphatically be said to be visited upon his children's children. Parents may unquestionably do much by a carefully considered plan of education, and by guarding their children closely from their own errors, towards warding off family diseases, and even towards breaking up hereditary tendencies. It is a most instructive fact, that in whatever direction we pursue our investigations into the causes of this direful disease, we must inevitably be brought to this same conclusion; the necessity of pursuing more closely the laws of nature;

of obeying more strictly the dictates of a pure and enlightened morality.

5. Dr. Rockwell, of the Vermont Hospital for the Insane, furnishes the following statistics of the institution for the year ending August 7, 1865: Remaining from 1864, 458; admitted during the year, 144. Total, 602. Discharged, recovered, 55; improved, 14; not improved, 11; died, 42.

Speaking of the causes of insanity, the following judicious remarks are worthy of attention:

The want of proper or suitable mental and physical education frequently lays the foundation and prepares the way for insanity. Physical education is all important for mental as well as physical labor. For any great mental exertion it is desirable that a person should have a sound mind in a sound body. Whatever promotes the general health also promotes the strength and energy of the mind. Without health it is nearly as difficult to perform mental labor for any considerable time as to perform physical labor without it. A proper exercise of the mental or physical system, imparts strength, energy and power to each; and each system is weakened by the excessive use, or by the neglect of exercise of either. The youthful brain should not be overtaxed with studies which require too much mental labor. On the other hand, a judicious mental exercise is necessary for healthy mental exertion. Avoiding physical exercise will never strengthen the physical system—so the unemploying of the mind will never qualify it for healthy exercise. One predisposing cause of insanity is the excessive mental labor in the process of education. It is rare that insanity is induced in childhood, but over exertion produces that morbid condition of the brain and nervous system that sooner or later will result in insanity by apparently slight and insufficient causes. It is a fortunate circumstance that most children have not sufficient fondness for study to have their minds or brain receive an injury. But there are cases in which excessive mental labor proves injurious if not fatal.

6. The first Report of the West Virginia Asylum is chiefly occupied with matters pertaining to the construc-

tion and finances of the institution. We are glad to see that the work is sufficiently advanced to permit the reception of 21 patients. Dr. Hills, the recently appointed Superintendent, after alluding to his two months service and consequent want of material for a report, goes on to say :

If it were worth while, I *could* dwell on the gratifying topic of a new State, (itself only just fledged,) while under the pressure of difficulties inseparable from the establishment of its own existence, starting out so promptly in the benevolent enterprise of providing for its suffering people. Perhaps nothing marks the progress in civilization so much as enlarging and widening the means of relieving the distresses of humanity, and there is no one direction in which these distresses and misfortunes are so conspicuous as in the loss of our reason—the obscuring of our intellect—the darkening of the very soul. What is the most abject poverty in comparison?

“Who steals my purse, steals trash.”

What is blindness, or what is deafness, but the loss of a single *one* of the many senses with which we are endowed for our comfort and enjoyment? “Madness” combines *all* the misfortunes with which humanity can possibly be burdened. In that there is *blindness* to all the lights of superior intelligence—*deafness* to all appeals of reason, and *poverty of mind* is the sum of all deprivation. In proportion as is the magnitude of this affliction, compared with others, so is the importance of the charity for its relief. No other one has equal weight—none should take precedence—and the State of West Virginia has done wisely, nobly, in thus promptly providing for this class. For another reason is this charity paramount to all others. Blindness is incurable, and long years of special education will not restore to vision one scintillation of light, or impart to its proper sense the charms of beauty. The deaf mute can never be made to hear the melodies of this world, or give voice to thought; but, thank God, insanity *is curable*, and the darkened mind *may* be made to see “the silver lining of the cloud,” and receive the full light of former intelligence.

From one-third to three-fourths of all the insane placed in properly appointed asylums, are restored to their reason, and sent home to

resume their duties in their several spheres. In proportion as they are treated *early*, are they likely to be restored, so that with early application of enlightened means, from sixty to eighty per cent. are restored. It is upon this point, more perhaps than any other on this subject, that public impressions are wrong, and that enlightenment is needed. Insanity is in reality as curable as most other diseases, as curable, for instance, as typhoid fever, pneumonia, dysentery, scarlet fever, etc., and much more curable than dyspepsia, consumption, small pox, etc. The often quoted line,

"Who can minister to a mind diseased,"

was written before the day of rational, enlightened treatment of the insane. If it had not been, it would never have been penned, as it implies what is not true. Mental disorders are the manifestations of physical derangements, and generally such as are amenable to treatment. In proportion to the effort that is made, and also the extent and variety of the means provided for the judicious care of the insane, as well as their early application, are the number of recoveries, and hence, what may on slight consideration be thought expensive arrangements, are truly the cheapest. An *uncured* case is a dead weight upon the public, whether in or out of an asylum, and continues so to the end of life. A *cured* case is ordinarily restored in a few months, and is a burthen for only that short period. One case not restored (perhaps for the want of proper means at the proper time,) may, therefore, cost more than a dozen recovered cases. Hence the real economy of having the most perfect, or a first class hospital for the insane, provided with the best appointments for the comfort, convenience, contentment and happiness of the patients; means of exercise, of amusement, occupation and diversion of mind. The expenditure of one dollar in this direction, if instrumental in curing a case of insanity, will save the expenditure of *ten* or *twenty* towards maintaining that case through life, should it become incurable, from the absence of those means.

7. The statistics of the Dixmont Hospital for 1864, as furnished by Dr. Reed, are as follows: In hospital January 1, 1864, 130; received during the year, 104. Total, 234. Of these 36 were discharged, recovered;

18 improved; 12 unimproved; and 10 died. Total, 76. Remaining January 1, 1865, 158.

Dr. Reed refers to the influence of the late civil war in the production of insanity, and with many others is disposed to think that this should not occupy a prominent place in its causation. He condemns most justly a practice which we believe from experience is altogether too common, viz: that of placing idiot children in the hospital, as insane patients, as a convenient mode of disposing of them; and where they are not only injured themselves, but become detrimental to the adult population. He also condemns the practice of committing those to the asylum who have been guilty of great crimes, and subsequently become insane, as greatly injurious to the feelings of many who are innocent of all crime. The Doctor remarks as follows on this subject:

The admission of such patients into any hospital is a serious evil in other respects. The quiet, inoffensive patient cannot be exposed to the attacks of an infuriated homicide, nor can valuable property and the lives of a household be at the mercy of the maddened incendiary. Hence the necessity of establishing for such persons, when received, a kind of discipline that is totally at variance with the spirit of the institution, and gives to what was intended as a "Home for the Unfortunate," to some extent the characteristics of a prison. That the *criminal lunatic* should have all the medical and moral treatment necessary for his restoration, is freely admitted; but justice and humanity demand that it should be given to him without sacrificing the feelings, endangering the lives, or prejudicing the recovery of the *innocent insane* by such unpleasant and injurious associations.

8. Dr. Chapin of the Kings County Asylum, Long Island, thus sums up the operations of the institution under his charge for the year ending July 31, 1865: The number of patients under treatment was 677; of these 263 were admitted, and 245 were discharged. Of

those discharged, 110 were recovered, 46 were improved, 14 were unimproved, and 75 died.

Dr. Chapin remarks :

In the treatment of insanity it is of primary importance to know whether there be any predisposition to mental disease in the family of the person afflicted ; but among such families there is often evinced great disinclination to acknowledge the fact. This proceeds, doubtless, from the natural aversion of admitting—even to one's self—the inheritance of a tendency to any unsoundness, especially of the mind ; and in the latter case from fear lest the circumstance, becoming generally known, should materially affect their social relations. Many persons have therefore been doomed to hopeless insanity by reason of a forced seclusion at home, who might have recovered had they been placed in a proper asylum at the commencement, or during the curative stage of the disorder. Although mental derangement is more common to those in whom there is a congenital predisposition to the disease, the proportion thus afflicted, when compared to the vast number who inherit something of this tendency, is so small as to divest the fact of any alarming significance.

Serious harm often results from allowing the mind to dwell upon this matter of hereditary transmission of disease. Under the stimulus of an over-excited imagination, almost any disorder to which there is a constitutional liability may be aroused, which otherwise might have remained for a long time, perhaps forever, dormant. Especially is this true of mental disease, which, there is little doubt, may be produced in the manner above stated.

9. The report of Dr. Peck, of the Central Ohio Lunatic Asylum, aside from the statistical tables, is mainly devoted to an exposition of the repairs to buildings, and to improvements in the grounds, and domestic arrangements of the house.

The statistical tables have been prepared with much care and pains, and are valuable as well as interesting. This applies especially to the larger table, entitled a General Summary of the Statistics of the Central Ohio Lunatic Asylum for 27 years. There is also a table

showing the per centage of recoveries and deaths in the same time. A table showing the attributed causes of insanity in all cases admitted. A table showing the diseases of which patients died. A table showing the duration of insanity before admission in 1865, and a table showing the number in which the disease was hereditary in proportion to the whole, and also the proportionate number of suicidal and homicidal cases.

The statistics of admission and discharges for 1865 are as follows: In Asylum November 1, 1864, 265; admitted during the year, 188. Total under treatment, 453. Discharged, recovered, 77; improved, 27; unimproved, 43; died, 29. Total, 174. Remaining November 1, 1865, 279.

10. Dr. Langdon, of the Longview Asylum, reports as follows: At the date of our last report we had remaining in the institution a total of 367 patients. Received during the year, males 73, females 90. Whole number treated, 530. Discharged, cured, 90; improved 31; unimproved, 3; died, 30. Total, 154. Remaining at end of the year, 376.

In relation to the supposed increase of insanity by the war, the experience of Dr. Langdon corresponds with that of many other observers. He remarks as follows on this head: That some have been made insane by the distresses and accidents of war is undoubtedly true; but the increase in the number of our inmates is owing, in the main, to the operation of more common causes. Prominent among these, the Doctor thinks, is the excessive use of alcoholic drinks. The general health of the institution is reported to have been good.

11. The number of patients under treatment in the Government Hospital for the Insane, Washington, D. C., on the 30th of June, 1864, was 351. Admitted during the year ending June 30, 1865, 515. Whole number of patients under treatment during the year, 866. Of these there were discharged, recovered, 348; improved, 101; unimproved, 9; died, 147. Remaining June 30, 1865, 261.

From the Report of the Board of Visitors we take the following highly interesting extract :

The admissions this year, five hundred and twelve (512) altogether, exceeded those of the previous year by six (6.) While the army and navy furnished nearly eighty-three (83) per cent. of the whole admissions, the number of military patients received was twelve (12) less, and the number of civil cases, including rebel prisoners, eighteen (18) more than last year.

Though the active operations of the war continued through most of the period embraced in this report, it will be seen that it exhibits the commencement of a return towards the old ratios which the military and civil cases bore to each other. The current year will doubtless exhibit a further movement in the same direction; but it is not probable that any generation of living men will witness the preponderance in our wards of the civil over the military cases which marked the *status ante bellum*.

It is an equally extraordinary and significant fact that the number of civil cases received into the institution during the four years of the war has exceeded the admissions during an equal preceding period only ten (10) per cent., notwithstanding an estimated increase of the permanent population of the District of one hundred (100) per cent., and two enactments by Congress—one providing for the care in the National Hospital, during the war, of all transient insane persons found in the District without the means of self-support, and the other making like provision for the same period for all cases of insanity occurring in any part of the republic among the civil employés of the quartermaster's and commissary's departments of the army.

This evident diminution in the relative prevalence of insanity in the District accords with the history of the disease throughout the

loyal States; and it is thought to show that the mind of the country was raised by the war to a healthier tension and more earnest devotion to healthier objects than was largely the case amid the apathies and self-indulgences of the long-continued peace and material prosperity that preceded the great struggle. Whether or not a kind of mental collapse will follow a return of peace, and be attended with an increase of mental disease, will depend upon circumstances which we cannot pretend to definitely foresee. If it unhappily should, the truth of this theory would be demonstrated beyond a question, and the old notions—doubtless true as observed at other times and under other systems of government—of the effects of violent national struggles upon the psychological condition of the peoples affected by them, entirely reversed as applied to the citizens of the North American republic. It is but a slight license to say that the nation laid down its life to save it; and that the national mind rapidly acquired a firmer strength and a higher tone amid the harrowing incidents of such a gigantic and all-pervading strife and sacrifice, must be accounted one of the most remarkable and interesting events in the mental history of our race! But, after all, the same natural law to which the nation appears to owe an increase of mental strength amid a sudden, vast and unprecedented expenditure of it, underlies some of the most familiar observations in psychology. The popular idea that weak and indolent minds in civilized society enjoy comparative immunity from derangement, is an erroneous one. All weakness invites disease, while strength repels it; and activity is a condition of strength. There is more insanity among the hinds and drones of mankind than among the Newtons and Websters. The capacity and application of philosophers and statesmen are associated with a strength and tone of the brain and nervous system which not only repel disease, but afford the innervation necessary to the vigor of the bodily functions. There are fewer dyspeptics among scholars than among unlettered men. It is true that poets—a class of most intellectual men—and madmen are thought to be allied; and it may be so. The mental constitution that affects the poetic fervor is not always—perhaps not generally—what is called a well-balanced one. Besides, the frequent exercise of the imagination in the conception of poetic images is apt to develop into inordinate activity a power of the understanding, especially when it is originally in excess, that is most prone to confound the ideal with the real, and thus establish one of the forms of the incipiency of insanity.

The whole number treated in 1864-'65 was eight hundred and sixty-six (866) against seven hundred and eighty-seven (787) in 1863-'64. As the number of admissions was nearly the same in each of the two years, the excess of seventy-nine (79) treated this year was mainly due to the greater number in the house at the beginning of this than at the beginning of the preceding year.

The recoveries here reported were all, it is believed, genuine restorations to the normal mental state of the respective individuals. There were nearly fifty-eight (58) per cent. of the discharges, including deaths, and a little more than 40 per cent. of the whole number under treatment during the year. The proportion of recoveries was somewhat less during the last two than it was in the first two years of the war. The high proportion of incurable cases among the soldiers who have formed so large a moiety of our population during the war, and the payment of bounties for recruits, began at the same time. The relation that those concurrent events bore to each other is obvious. The various bounties, particularly the large sums paid for recruits during the last year of the rebellion, stimulated the cupidity of recruit and substitute brokers to the exercise of an ingenuity and perseverance, and to achieve a success, in imposing upon the army senility and childhood for vigorous manhood, and imbecility for soundness of understanding, which, had they been displayed in the genuine service of their country, would have commanded the blessings of a heroic patriotism. It was found that recovered soldiers discharged from the hospital and service, and paid off, and left to journey to their homes by themselves, were so frequently the victims, while on their way, of the diabolical arts of "drugging" and robbery, and then of literal sale as recruits or substitutes, that no such patients were permitted to leave the institution during the last six (6) months of the war, except under the personal protection of friends or officials. The fact that nine (9) natives of Canada were admitted to the hospital during the period under review, while only two (2) were received during its previous history of nine (9) years, affords ground for the suspicion that our political neighbor on the north parted with some of her dependent population at a handsome premium. We could write the current history of several of the large alms-houses and municipal institutions for the insane from the declarations of patients received into the hospital during the past year.

The same causes that have slightly reduced the proportion of recoveries have increased the number in the table of discharges classed

as *improved* and *unimproved*. The most of the improved cases had become mentally as comfortable as they were when cruelly imposed upon the service, or had in any probability been for many years, and a large proportion of them were taken to their homes by relatives or friends, where they could be usefully employed and enjoy a qualified liberty.

The discharge from the service of the few classed as *unimproved*, eight (8) out of nine (9) of whom were army patients, was accepted by friends who preferred to place them in the care of institutions near their distant homes.

The per centage of mortality this year was large, but, however much we may regret it, it seemed inevitable under the circumstances. Over seventy-two (72) per cent. of the deaths were in cases of chronic insanity, and in three-fifths ( $\frac{3}{5}$ ) of the remaining cases the fatal event was due to morbid condition existing at the time of admission. By *inanition*, as an assigned cause of death, is meant the non-assimilation of food in consequence of a peculiar exhaustion of the vital forces. In these cases the mental disorder was not of an active and exhaustive type, and no acute idiopathic disease could be detected. The only exception to our remarkable exemption from local disease consisted in the communication of typhoid fever, with which many soldiers were admitted in the fall and winter, to some of the chronic cases already in the house, who, from defective innervation, offered but little resistance either to the invasion or progress of an asthenic disease; and for a few weeks the fever prevailed considerably in several wards on the male side of the house. That typhoid fever is in no sense an endemic disease here is shown both by its entire disappearance as soon as it ceased to be brought to us from the field, and by the non-occurrence of a single case in the women's wards, in which the mortality from all causes, during the year, was only between six and seven (6 and 7) per cent. of a population composed largely of chronic and infirm cases.

The population of the hospital at the close of the last government year was less than it had been at any other time for two years previous. This reduction was mainly effected by embracing the favorable opportunity which the return in June of so many of the different organizations of the army to their respective States afforded to send home in the care of comrades or officers, all recovered men, and most others who had evidently not become insane in the line of duty, and

would certainly be properly cared for either by their friends or the local authorities.

The admissions since the beginning of 1865-'66 have averaged about one a day. As the army becomes more "regular" and national in its organization, and the rank and file is reenlisted from the least inhabitative population of the country directly into the service of the United States, the soldier will have much fewer of those State ties and claims which have generally led to the early removal of the incurable volunteer to his home and its local protections. In this way it is expected that the present and future population will, as a rule, have a much more protracted residence in it than the volunteers had, and that the average number of inmates will soon equal, if not exceed, the highest number resident at one time during the war.

12. In the Eastern Kentucky Lunatic Asylum there were 241 patients October 1st, 1864. During the following year 59 were admitted, making a total of 300 under treatment. There were discharged, recovered, 26; removed, 2; eloped, 8; died, 14. Remaining October 1, 1865, 255.

Dr. Chipley's Report calls attention to the fact that the number of the insane is rapidly increasing. He believes with Esquirol that "insanity is a malady of civilization and that the number of the insane is in proportion to its progress." It becomes, therefore, a matter of vital importance to devise some method, by which this class may be provided for, consistent with proper economy and without lessening the chances of recovery, or, in any material degree, diminishing the comforts they now enjoy. After touching upon some of the plans which have been urged and the obstacles in the way of their success, he discusses the question of separate establishments for the curable and incurable. The accompanying extracts set forth the Doctor's views on this subject, and also his suggestions for a combined Hospital and Asylum arrangement to meet the existing want:

It has been suggested that we may economize by separating, in different establishments, recent and supposed curable cases from the chronic and supposed incurable. The question arises at once, what is to be the source of this economy? In what respect is the maintenance of the incurable less costly when separated from those whom we hope to cure? Is it not to be supposed that any one proposes to lessen, in these incurable establishments, the amount of food to be consumed, or to deteriorate its quality for the sake of cheapness. Nor can it be expected that anything can be saved on clothing, as this is, in all our State hospitals, plain and substantial, and only such as is necessary to the preservation of cleanliness, comfort, and health. Is the desired end to be accomplished by lowering the standard of professional supervision? Can this be done with justice to those whose incurability is only a matter of opinion? In many instances it is impossible to determine with certainty that one has reached that point which precludes all hope of restoration. Some, apparently the most hopeless, have recovered after years of confinement in modern hospitals. I have witnessed instances of the kind in this Institution, and I doubt not every gentleman in charge of a similar institution will confirm my observation by his own. In curative institutions the strictest attention is given to all inmates—hope lingers ever—the smallest spark of intelligence, even in the most forlorn, is discovered and appreciated, and every means is resorted to to fan it into a flame. In a house of incurables no expectations would be indulged, and such cases would almost certainly pass unobserved, and, if observed, the surroundings of the patient would be, in the highest degree, unfavorable to a happy issue. There would be no motive for that daily and intimate intercourse between the medical officers and patients which exists in our hospitals as at present organized.

The fundamental principle on which it is proposed to found these establishments will necessarily lead to enormous abuses—the more inevitable because their great halls and chambers will be filled exclusively with the humble, friendless, indigent insane. No merit will be sought or expected except in the small amount of money which may be made to suffice in keeping soul and body together. This principle will permeate every department. \* \* \*

Many of the insane preserve unimpaired most of the mental faculties, and are as purely sensitive to the treatment they receive as any of the most gifted of our race. Some of them are persons of education

and refinement—reduced in circumstances, perhaps, in consequence of their misfortune—but still appreciate as fully as ever the ordinary comforts of life, and have as keen a relish for all the varied means of recreation and improvement which are liberally supplied in all of our curative institutions. How cruel it would be to banish such an one to the society of that horde of filthy and disgusting objects who would be sure to constitute the first instalment from our hospitals to the incurable receptacles! But the deprivation of physical comforts and mental recreation would be less torturing than the loss of hope. A large proportion, even of the incurable, in our hospitals, still hope on—hope ever. Every few days they witness the departure of some recovered patient happily on his way to a cherished home and loving friends. By the very act of sending him to the house of incurables you bid him hope no more—all earthly expectations are at an end—he feels himself consigned to a living grave, and that, too, where every movement is to be regulated, not by a consideration of what is necessary to his comfort and welfare, but by a nice calculation of what may be the least possible amount required to preserve life, and the most effectual means of compressing the greatest number of human beings into the smallest possible space.

If such a system is adopted, many, who are just able to earn a living, will refuse to allow a member of the family to be sent to the asylum. Learning that none but the poor, and those to be regarded as incurable, are admitted, every hazard will be braved to retain the afflicted relative at home. Unable to bear the expense of special attendance, cruel restraints will be resorted to, or the hours of labor may be infringed upon in giving personal attention, until the entire family is reduced to penury and want. No one can estimate the evil effect of a lunatic in a family of moderate means. His presence disturbs all domestic arrangements—banishes peace and all enjoyment from the family hearth—affects injuriously the temper and minds of old and young, and may even involve others in the same sad fate. When separate provision is made for the poor, many such cases will occur. There are many humble persons who are sensitive, and would not consent to commit their friends to such an institution. They know that no such institutions are managed with proper regard to the comfort and welfare of the inmates, and they will even do worse at home rather than submit to implied degradation. \* \* \*

The scheme which appears to me to be the most feasible—free from the insuperable objections which attach to any of the exclusive

plans proposed—less liable to abuses and more economical than the system which now prevails, is an institution which shall combine hospital facilities for the treatment of the curable with an asylum as a place of refuge for the incurable. There is no incompatibility in these elements, and the union is favorable to the interests of all classes. I believe that the welfare of all classes of the insane would be promoted in an institution constructed to meet the wants and wishes of every grade of society. Every scale of accommodation should be provided, so that no obstacle to recovery, or to the enjoyment of the remnant of life, should exist from any violence done to the former habits or prejudices of those admitted. Nowhere should these accommodations fall below the standard which is designated by that expressive word—comfortable.

The insane cannot be made self-supporting, but their labor, properly directed, will contribute largely to their support, promote the restoration of many of the curable, and improve the health and add to the happiness of the incurable.

Here is precisely the point, and the only point, where I can discover any possibility of lessening the annual expenditure for the maintenance of the insane poor, if it is our purpose to treat this class of unfortunate people with humanity. Economy here happily coincides with the best interests of those concerned. Labor has been the lifetime habit of most of our subjects, and, without it, they become the victims of the most distressing ennui. Of course this system does not contemplate profit as a primary object—it is only incidental—the guiding star is the health, comfort, and happiness of those for whose benefit it is designed. The possibility of cure is never to be lost sight of; and hope is to be fostered to the last. \* \* \*

I do not mean to say that such an institution is to be made a mere work-shop, even for those who are considered as incurable. Recreation is as important to the insane as occupation, and it should be as varied as the habits and tastes of those for whose benefit it is provided. The house should be made a pleasant home, adorned with all those simple and tasteful decorations which are commonly found in the houses of the classes to be treated. Useful and entertaining books, social entertainments, and innocent games of all kinds, pictures, music, &c., should be liberally supplied to engage the hours of leisure and divert the mind from its wayward fancies.

Large and handsomely cultivated pleasure grounds, made attractive by extensive and pleasant walks, and abounding with flowers, reach the heart and affections of the humblest, and are of essential service in the treatment of all classes of the insane.

An institution thus provided with ample means of occupation and recreation would possess at once the efficiency of a hospital for cure, and all the safeguards against abuses which it is possible to throw around an Asylum. It would combine in itself all the material and moral conditions which are required to assure persons, deprived of reason, curative treatment and the benefits of refuge.

The public interest in its welfare would be unflagging, because its wards would always contain persons in a process of recovery. There is, perhaps, no surer safeguard against abuses, that are liable to occur in institutions for the insane, than a knowledge, on the part of the employés, that some of their charge are recovering, and that they will be competent to give a correct account of what occurred during their illness, and of the treatment they received from those about them. While there are a few, even after recovery, who seem to labor under some delusion as to what happened during their sickness, most of recovered patients are reliable, and to such an institution is indebted for much of the character it sustains in the public estimation. This safeguard is potent for good in all curative establishments, but no such shield exists where all are incurable and none are considered reliable. There is a great gulf between the incurable and the public, which can be bridged only by the insane who are curable. The kindest friends too often lose all interest in those who are pronounced incurable; and this is emphatically so when they become inmates of an incurable establishment; and if it were otherwise, how is the treatment in such institutions to be ascertained? Those who misuse their charge are not likely to be communicative; the officers cannot be always at hand, and the testimony of the inmates is too apt to be colored by their delusions or influenced by the idea that they are unjustly held in custody, to have much weight. The cost of maintenance would be less than the aggregate cost of the two classes in separate institutions. It is an undisputed dogma, that a hospital for acute, or supposed curable cases, should not be constructed to accommodate more than two hundred and fifty patients. If strictly limited to this class of the insane, I am fully convinced that the number designated is too large. But if the features of a hospital and an asylum are combined in the same institution, the number of inmates may be very

properly increased to five hundred. As the number is increased, the cost per capita is diminished. The proposition to found establishments for incurables is founded on economical considerations alone. It is not pretended that either class will be benefited by the separation. On the contrary, it is conceded that the presence of quiet incurable patients, who have acquired habits of industry, order, and obedience, is of immense service in fixing the same habits on recent and curable cases. It is conducive also to economy. I do not entertain a doubt but that the corps of officers, and the number of personal attendants, required to take care of one hundred curable cases will discharge their duties more easily, and with more satisfaction, with the addition of one hundred and fifty incurables. I am sure if one hundred and fifty incurables were removed from this institution, and one hundred curables remained, it would not be practicable to make any reduction in the items of expense for salaries and wages; and if the places of those removed were filled with recent cases, these items would grow to enormous proportions.

The system of separate institutions will entail another expense not incident to that which proposes combination. The cost of transporting patients from one institution to the other, as they may be considered curable or incurable, cannot fail to amount to a considerable sum every year. There are incidental advantages connected with the combined system. The large number of patients that may be admitted multiplies the number of wards, and affords an opportunity to make a more extensive, and, of course, a more perfect classification; than which nothing contributes so much to the harmonious and quiet working of an institution for the insane. In such an institution the classification would be founded on the mental condition and habits of patients, and not on the doubtful question of curability.

13. At the date of the last report of the Pennsylvania Hospital for the Insane, there were 279 patients under treatment. Since which 231 have been admitted, and 206 have been discharged or died, leaving 304 under care at the close of the year. The condition of the discharged was as follows: Recovered, 102; improved, 40; unimproved, 26; died, 38.

Dr. Kirkbride offers these reflections with regard to the employment of the insane in laborious occupations :

It is really important that ample provision should be made, in connection with every hospital for the insane, for the mechanical employment of those patients who are likely to be interested in such pursuits, and whose mental and physical condition makes it desirable that they should have such forms of occupation. Much discretion, however, is always necessary in directing labor for the insane, and most, perhaps, when mechanical employments are engaged in. The medical officers alone can properly prescribe it, and they should always carefully observe its effects on the patients, and the mode in which they perform the work assigned them. All efforts to make the labor of the insane profitable to an institution are liable to render it a disadvantage, instead of a benefit, to the patients. If entrusted to ordinary persons, and with the understanding that the more profitable pecuniarily the work of the patients is made, the better their employers will be pleased, it is almost certain that not a few will be required to do more than is proper, and that uncomplaining persons will often suffer from attempting what is really beyond their physical capacity. This applies particularly to cases somewhat acute in their character, in which there is often a morbid activity and energy, but it is also true of the chronic and the demented, the very classes which are relied on to reduce the cost of taking care of the afflicted, when it is proposed to prepare separate institutions for the insane who are supposed to be incurable, and about which something more will be said in a subsequent part of this report.

It is obvious that few patients can engage advantageously in mechanical pursuits in comparison to those who may amuse themselves in taking care of the pleasure grounds or the vegetable and flower gardens, still there are some who seem to derive special advantage from the mental occupation required in the former, and cases are familiar to most of us, where, to exactly such agencies perfect recoveries seem to be attributable.

Our readers will peruse with much interest Dr. Kirkbride's opinions with respect to the care of the chronic insane :

Propositions have frequently been made of late to provide separate institutions for what are commonly called incurables, and it seems

only proper that the community should have the views of those whose official relations to this class have compelled them to reflect on the subject. For this reason, and also as a convenient mode of replying to frequent questions, reference is again made to this subject, which has already on more than one occasion been noticed in the reports of this institution. Before entering on any general discussion of the matter under notice, I would once more protest against the use of the term "incurables." There is no one wise enough to say, with absolute certainty, who among the insane are incurable. That can be decided by Omniscience alone. There is no fixed period when such a decree can justly be entered against the sufferers from insanity. Such a decision might often be serious in its results, and there could hardly fail to be produced a sadly depressing influence on any one of common sensibility on being sent to an "institution for incurables." As justly remarked by the editors of the *AMERICAN JOURNAL OF INSANITY*, over the entrance to such a building, Dante's inscription for the portals of another place might well be written, "All hope abandon, ye who enter here!" Every one with large experience will easily recall cases where perfect recoveries have taken place when least expected, long after all hope had been given up, not only after one year, but after many years' existence of the most discouraging trains of symptoms. It is a good axiom, that every case received into a hospital should be placed under treatment, and that the use of remedies should be steadily persevered in.

Some kinds of treatment should never be given up, if not to restore the patient, it should at least be to prevent a lower mental and physical condition. Medicine should be given whenever there is any indication for its use, and very often there is, even in the most chronic cases, but medicine is only one of a long list of means at our command. The other remedies, of a most varied character, which ought always to be found about a hospital for the insane, are, many of them, of a kind that no patient should be deprived of. Important and indispensable as these are for recent cases, their influence on the chronic is also almost uniformly favorable. The absence of many of these accessory means, as is pretty sure to be the case in any separate provision for the chronic insane, is one of the strongest objections to the introduction of such institutions. It is everywhere proposed that these should be cheap establishments, by which is understood, that they are to require little money from the public treasury for their support, and yet such may prove the very dearest kind of institutions

for any community. It is never economical to do wrong. The cheapest institution, even if its expenses are large, is that which carries out most efficiently the objects for which it was established—the restoration and comfort of its patients, the relief of the families of the afflicted, and the protection of the community—while an establishment which fails in these respects is a dear one, even if it takes not a single dollar from the pocket of any one, nor from the public coffers; just as an inefficient officer, serving gratuitously, might be much dearer than a thoroughly efficient one with a liberal salary.

It is to be remembered that the chronic are not always the most unpleasant cases about a hospital, and, as a general rule, they are by far the least expensive to treat. The costly arrangements, the special attendance, nursing, and remedies, are particularly for the recent cases, no matter whether they are rich or poor, high or low in life, and of all levellers of artificial distinctions, insanity is one of the most thorough in its work. Wealth, talents, refined accomplishments, social position, no one or all of these are sufficient to maintain the distinctions which society recognizes, when our fellow men are laboring under some forms of mental disorder.

It is sometimes supposed that recent cases of insanity are injured by coming in contact with the chronic, but if this be so, it must be from a defective system of classification. As already intimated, chronic cases are often among the most intelligent and agreeable persons in an institution, while recent ones may be, and frequently are, among the most unpleasant and repulsive in their habits and actions. It would be pleasant in a town, or a section of a town, to live where there were only educated and agreeable people, none that were naturally vicious or had bad habits of any kind, where all were model Christian men, women and children, and where in our walks about the streets, we should meet only people agreeable in looks, manners and conversation. This happy phase of society, however, has not yet been reached anywhere. A hospital for the insane, properly organized with a good and extended scheme of classification, is somewhat like a square or block in a city. Each ward represents a family, and where those belonging to one family or boarding house are not expected to be looking too intently for the difficulties that may be occurring among their neighbors. So in walking along the streets, it is their own fault if their attention is directed especially to what is unpleasant, rather than to the agreeable sights that are constantly coming before them. It is rare that there is a square in any populous



city, where, at some time or other, persons are not to be met, with whom we do not care to associate, but whose presence there, if they are let alone, need not be any particular annoyance to us; and we do not complain that, in a lecture room, the whole audience is not composed of those with whom we would wish to be intimate.

The proper control of an institution for the chronic insane would require ability of a high order—even something more, perhaps, than for an ordinary hospital—for it would often seem to be labor without immediate results, a work of duty, that could only be expected in a high Christian character. The compensation for such services would not be less than for the care of a more interesting class of patients, and the same may be said of subordinates in every department of such an institution. Then, food and clothing would be required just as much for these as for any other class, and the supply of warmth and light for the building ought to be just as liberal. In what way, then, are these institutions for the chronic insane to be carried on at so little cost, except by taking advantage of the infirmities of the patients, and getting from them an amount and kind of labor for which their mental and physical condition will often disqualify them? Certainly this class of misfortunes appeal to the best instincts of our nature to protect those who suffer from them, from even the appearance of wrong.

The idea of making such institutions self-supporting by the labor of the insane, is a fallacy, that a very little experience, in this country, will soon demonstrate to the satisfaction of every political economist. Wherever the labor of the insane is made to produce such a result, there, I am confident, will be a fair field for investigation, ready prepared for some enterprising philanthropist, for there can hardly be a doubt but that heavy burdens will have been laid on the unfortunate, or that they have been subjected to uncalled-for privations.

All the advantages that can possibly be derived from institutions for the chronic insane alone, can certainly be had in those put up by the different States for both recent and chronic cases, and into which all classes of persons—not the poor alone, but the afflicted—are received. Connected with all such, there should always be an abundance of land for farming and gardening, and ample facilities for mechanical employments. The patients can be just as much in the open air as in any other situation, and when there, can have rational exercise and at the same time be under supervision of a far more efficient character than is likely to be secured in institutions for the

chronic alone. The advantages for amusement and pleasant occupation, when not in the open air, will certainly be greater and more varied, and the condition of the chronic insane is so diversified as to require much discrimination in their treatment.

Without reference to the protection of the community from the acts of irresponsible individuals, it is no favor, generally, to the chronic insane, to permit them to wander about at pleasure. This kind of liberty is often only another term for suffering and exposure, and they are saved from both, and have better health and much more enjoyment, by having their movements somewhat directed and controlled by intelligent Christian men and women, who practice that best of mottoes—best for hospitals, as for ordinary life, though it may not be always too well remembered—“All things whatsoever ye would that men should do to you, do ye even so to them.”

The idea of boarding the insane, with private families, in which there is no one with even ordinary qualifications for such a duty as would devolve on somebody, seems hardly worthy of serious discussion. To say nothing of the moral and sanitary objections to such a course, a much greater amount of physical restraint will obviously be necessary, than in any well conducted hospital.

The only proper mode of providing for the chronic insane, in my estimation, is for every State to erect just as many hospitals as are necessary to give to every insane person within its borders a chance to participate in the benefits which they offer. While these structures should have connected with them everything calculated to promote the comfort and restoration of the patients, not one dollar should be expended on what does not directly or indirectly contribute to these objects, and the propositions of the Association of Medical Superintendents, both in regard to construction and organization, should be fairly carried out. If it is desirable to provide for a large number in one locality, I would then recommend a separation of the two sexes, in the manner which I suggested to Mr. Sloan, the architect, of this city, when preparing plans for the Sheppard Asylum at Baltimore—which mode does not violate the propositions of the Association already referred to, even in regard to numbers, and which has some features that may be worthy of investigation by those engaged in providing the best accommodations for the insane, at the smallest cost.

It is often said that the people—the tax-payers—would not willingly submit to the burden of providing for all the insane, in properly

constructed and properly managed hospitals. There is, however, no evidence of this being so, coming from the people themselves. The people of this country have on many occasions shown their willingness to bear very heavy burdens when convinced that the cause was right and the money collected faithfully used. If the community can be taught that these institutions are specially for their own benefit, and will be economically built and managed, if they can see that they are made efficient for the relief of the afflicted, if they know how much more economical it is to cure a citizen, even in the costliest hospital, than to support him, and probably some of his family, in an almshouse, for life, hardly any one in this Christian land would be unwilling to contribute his share—exceedingly small as he would find it, if he would make the calculation—of what was required for the purpose. Those in quite moderate circumstances and the poor could hardly object to such expenditures, and the wealthy ought not to do so, for no one is so rich to-day, that some of his descendants may not require the benefits of this, unquestionably one of the most benevolent endowments of the State.

14. The general results of the year at the Massachusetts State Hospital, at Worcester, are thus stated: Patients in Hospital, October 1, 1865, 344. Admitted during the year, 221. Whole number under treatment, 565. Discharged, recovered, 105; improved, 58; unimproved, 28; died, 33. Whole number discharged during the year, 224. Remaining September 30, 1865, 341.

Dr. Bemis argues that the existing system of organization of hospitals for the insane, is defective, inasmuch, as it presents to all, whatever may be the grade of their disease, the same unvaried rule, the same unyielding routine: In the subjoined extract, he sets forth a plan for the reorganization of the Worcester Hospital, which he believes will remedy these defects:

During the past two or three years there has been a steadily increasing demand for larger and more commodious rooms and a higher style of accommodations than we can at present offer. For many years better ac-

commodations have been needed for certain classes of patients admitted to this institution. The institution presents to all the same unvaried rule, the same unyielding routine. No matter what a person's previous habits and associations have been, when disease comes upon him and he is obliged to seek refuge in an asylum, he must take his place in a common ward, occupy a room eight feet wide by ten in length, and scarcely eight feet in height. If he has any society it must be the society of those assigned to his ward. The accommodations and conveniences of the ward at the very best are hardly sufficient to preserve the decencies of domestic life.

There is a class of patients in every hospital who require little or no restraint or seclusion. They cannot live at home or with friends; they need the assistance, guidance and support of a hospital or asylum; their friends are able and willing to pay for it; they are proper subjects for the guardianship and treatment of the hospital, and yet the hospital affords them no adequate accommodation or convenience.

There is that wayward, suspicious, troublesome class, many of whom belong to the higher ranks of society; they are querulous, critical and censorious; they cannot conform to the usages of any family circle; they disturb the peace of society; and at length are consigned to the custody and care of the hospital; but the hospital with its present arrangements cannot detain them with peace to its managers, or comfort to its other inmates.

There is a class of quiet, apparently harmless and industrious persons who need just that amount of guidance and direction dispensed in a well ordered hospital, but who do not require the existing arrangements for strength and security, and who would be further improved by some new arrangement, some modification of restraint, impossible at present. This large class, generally considered incurable, must continue to be subject to the care and control of the hospital, and might at a less expense be comfortably provided for in some other institution, where to custody, useful occupation, and medical care and control, might be added some of the comforts and pleasures of the family and home.

Convalescents, too, those whose minds are so fully restored as to render a further companionship with the insane irksome and injurious, but who are not sufficiently strong to return to their homes and resume the active duties of life without great danger of a relapse, should have some intermediate place between the necessary restraint of the hospital, and the danger of a too sudden return to excitements incident

to active life. Some resting place which shall make the passage of the convalescent from the confinement of the hospital to the freedom of society gradual and safe, and so afford time and opportunity for the weakened powers of the mind to become strong enough for the daily conflict of life, is one of the great and growing wants of this institution.

This hospital necessarily applies the same arbitrary rule to all classes of patients, and to every grade of disease; the same unsatisfactory relations exist for those who require all the tact, skill and strength of the institution, and those who only require the comfort, rest and peace of an asylum; its operation is that of a machine, bearing with equal, unyielding severity upon the mild and harmless, and the violent and dangerous, affording the same amusements and pleasures to the incurable and demented as to the most intelligent convalescent.

For nearly one-third of a century this institution has to a great degree answered the wants of this community, and fulfilled its duties the community know how well. Shall it be made to answer the growing demands of another generation of men? If so, it seems necessary at once to extend our plans, multiply our facilities, and improve our system, so as to afford to all the greatest possible chances for recovering, and the greatest amount of comfort to such as may not recover. Let us, if possible, establish a family circle for a few of the convalescent of both sexes, by opening a house and placing it under the care of a married couple of well tried, faithful, skilful attendants. Let us attempt the same for a class of harmless, industrious incurables, and also one for two or three of the more difficult, whose friends are able and willing to pay generously. Let us inaugurate some such plan, and quietly and steadily persevere in it until it shall prove a success. If need be, let us ask legislative assistance and direction, and thus commence under sanction of the law. If you ask how this can be accomplished? how, even the work may be commenced? several methods may be suggested.

*First.* There are in the immediate vicinage of the hospital, adjoining its grounds, several well constructed cottages now offered for sale, and some of which could, doubtless be rented for a term of years, if thought more advisable to so timidly begin the work. *Second.* The whole hospital property could be put into the market, and still occupied for the present, until a sum was realized, which would nearly pay for an estate, with new and appropriate buildings, perfectly adapted to the wants of the insane. *Third.* Twenty-five acres of the grounds

and gardens adjacent to the buildings, were last year appraised at one hundred thousand dollars; a sum which would go far towards the erection of new hospital buildings, and leave in a compact area eighty-five acres of the most desirable land belonging to the estate, on which such buildings might be placed. The site would be pleasant and healthy; overlooking the city and surrounding country, and affording a prospect of great beauty and activity; removed a little distance from the city, but easy of access. There are doubtless many other desirable localities. The hospital already owns this, and can spare the twenty-five acres for a capital upon which to work. On no condition, however, should any land be disposed of in any other arrangement for the prosecution of the plan.

I would recommend then, something like this: that the Trustees have power to put into the market, certain lands belonging to the hospital, and that they proceed quietly to remove the material in the present buildings, one wing at a time, to Chandler Hill, and there use it in the construction of new buildings, so far as it can be made available. The proceeds from the sale of lands, and such assistance as the legislature may grant, to be expended in carrying out the design. Let it not be understood that the site spoken of, is the only desirable one, or that there is none better. Within the limits of Worcester, and near to the town, there are others every way desirable, and one of which could have been purchased a few years since at a reasonable rate. Could this, or any similar plan, be adopted and carried out, a wide step would be taken in advance of any existing arrangements for the care and recovery of the insane. Will not Massachusetts take this occasion to consider the necessity and propriety of making such an arrangement for her most unfortunate children?

In the carrying out of this or any similar plan suggested by the foregoing remarks, a departure would of course be made from the general style and character of hospital buildings. There would be the central edifice; the hospital proper, in which would be placed all the cases of acute mania, the violent and dangerous, the suicidal and troublesome; having every arrangement for classification, and every convenience for the treatment of insanity; with large and airy sleeping rooms, and day rooms, and with improved facilities for bathing, and a more reasonable arrangement for water-closets. There would be, on one hand, a few cottages, plain, neat and convenient, for the quiet, harmless and industrious of both sexes; with workshops, where they could follow such industrial pursuits as could be made available,

with the laundry and bakery for the whole. On the other hand, there would be the residences of others, who would devote their time to the cultivation of gardens, in music, reading and writing, walking and riding, and such other light occupations and amusements as they were accustomed to follow when in health. Then, there would be the chapel and lecture room, in which there would be, at regular intervals, divine service and frequent lectures, sociables and reading clubs.

If the obstacles to a radical movement seem insurmountable, there can be no question as to propriety of leasing, with a view to purchase, two or more cottages in which to make the experiment in a small but safe way. Success in the undertaking seems to be perfectly sure, and there is no danger of encumbering the institution with any new burdens in assuming the responsibilities of the enterprise; on the contrary, we shall lighten existing ones.

At present, the rules and regulations relating to the hospital are, to a certain extent, arbitrary and unjust. The moment a man is placed in the wards of the hospital he is considered insane, and is, in the eye of the law, insane, no matter what is his real condition, or what the grade of his disease. All the civil difficulties of a case of insanity attach to him, and do not readily leave him. The moment he is thought to be well enough to return to his family, and receive the care and attention of his relatives and friends, he is said to be sane, to have recovered. He returns to the duties and responsibilities of active life at once, with no kind assistance, and with no protecting care. The beneficial influences of the hospital close, and he returns to the world, where his misfortune often operates strongly against him. Make the arrangement suggested, even by a small beginning, and some of the difficulties will be removed. Patients would have all the real benefits of home treatment, all the pleasures of the family circle, with suitable occupation, recreation and amusement, and much more open air exercise than can now be enjoyed. They would have the society and companionship of friends and relatives, with much more comfort, and would enjoy all the social ties in a more reasonable and generous manner. Above all, the restored would pass from the hospital to the world at large by gradual steps, and recover, one by one, his customary duties and responsibilities.

15. The Biennial Report of the Illinois State Hospital for the Insane contains the following summary of results: Number of patients in the Hospital, December

1, 1862, 302. Number since admitted, 408. Whole number treated since December 1, 1862, 710. Discharged, recovered, 159; discharged, unrecovered, by order of Trustees, 133; discharged, unrecovered, by mutual consent of Superintendent and committing parties, 48; discharged, unrecovered, but improved, 14; eloped, 13; died, 42. Total number discharged, 409. Remaining December 1, 1864, 301.

Dr. McFarland is always most happy in his delineations of the various manifestations of insanity, and particularly in his analysis of the more subtle phases of the disease. After a notice of the salient points of mania, acute and chronic, he observes :

My enumeration of the more striking forms of insanity, in their relation to an institution, would be incomplete if I omitted one, whose features will be but too well recognized by all who have had much experience in this specialty. It is not an important class from its numbers, as it constitutes probably not one per cent. of the admissions to any institution, and, as a high-pressure social system is a prolific source from which such cases emanate, they are less frequent here than where society is more luxurious and condensed. In these cases, the subtle unhinging of some radical constituent of the mental being, whose agency in the natural working of the machine is beyond our philosophy, produces a form of disease, at once unique, perplexing, and, in the highest degree, difficult to treat with satisfaction. The small apparent evidence of a departure from mental soundness, especially at only a brief observation, adds to the embarrassments attending the case, as the individual is ever ready to play upon the doubts of any who may question the fact of insanity. There is usually just brain excitement enough to give increased force and acuteness to every operation of thought, and those unaccustomed to mental admeasurments may be struck only by what appears to them extraordinary brilliancy of idea, and originality of expression. It is singular, but I believe true, that such persons may utter almost any continuation of spoken language without betraying themselves—the severer ordeal of writing, alone, serving to discover the diseased mental processes. What will add still more to the accumulated difficult

ties of the case, is, that the individual, quite frequently, understands precisely what will be considered proofs of insanity, and dextrously avoids actual commitment on subjects where the close student of the case can yet discover that there are diseased conceptions. The listener will sometimes be carried quite to the verge of some actual diseased point, and there be left, to reach it by the irresistible force of an inference.

If all the difficulties attending such cases consisted in anomalies of thought, only, few of them would become subjects for hospital treatment, and thus would have no mention in this connection. But, from the peculiar root of the matter, whatever it may be, there springs, conjointly, a set of moral perversities, which have the effect to throw the individual into cross purposes with others, of the most trying character. To thwart, disorganize, and destroy the salutary influences and purposes of others, who are moving along in the ordinary pathway of human affairs, is a mission upon which they are driven with all the impelling power of insanity—a force infinitely stronger than the incentives which proceed from reason and natural sense of duty. It is fortunate for others if some imaginary call breaks up the local attachments of such persons, and sends them abroad, as is frequently the case, as peripatetic reformers. A vagrant life has the effect to diffuse and dissipate, as it were, any intensities of feeling, and they eventually sink out of sight by the supervention of a mild, but quite palpable insanity. Pent up within the limits of a family, a church, or a circumscribed community, the evil influence of such a person will eventually reach an explosive point, under which the prayers of their friends, for their admission to the hospital, become too pressing to be resisted. Those familiar with the history of the commotions of the infant colony of Massachusetts Bay, in connection with the doings of Anna Hutchinson, will find, in an investigation of this disease, the key to the singular career and hapless fate of that once famous personage.

Happily these cases are few in the records of our institutions, as one instance will cause more annoyance than scores of ordinary cases. Of the propriety of their admission there will be many opinions: one class, only, being unanimous—those who have most to do with them, and can best compare them with their former selves. In a hospital, their powers of mischief are intensified by the limited area of their operations. To fill the minds of less intelligent patients—especially new comers—with prejudices and terrors, in the face of

which no improvement is possible; to instil suspicions into the minds of friends of other patients by surreptitious correspondence; to set nurses at variance by artful misrepresentations; and to harangue visitors upon imaginary abuses suffered, are among the ordinary devices of these anomalous subjects. The wondrous adroitness with which they will place themselves in positions where they can have some pretext for considering themselves as subjects of abuse, and their ceaseless clamor when their pet grievances have a color of support, tax to the utmost the vigilance and patience of those assigned to the care of them. Most welcome is the day which brings the order for their discharge.

We conclude our reference to the able report of Dr. McFarland with the following extract upon the present faulty method of obtaining and applying the testimony of experts in cases involving questions of mental incompetency:

The position which the Superintendent of this institution must hold in relation to the administration of justice in the courts of the State, in a certain class of cases, has been matter of comment in a former report, and is still attended by so many embarrassments as to demand further consideration. No humane and thinking person, at this time, doubts that the violent acts of the insane should not be placed in the category of ordinary crimes, but deserve certain extenuations, especially when clearly preceded by a train of diseased reasoning, of which the act was a manifest conclusion. The question of insanity, indeed, constitutes the very essence of many cases which must constantly recur while disease is inherent in the human family; and to attempt to exclude the only kind of testimony which elucidates it is as futile as to exclude light in the operations of photography. The multiplication of hospitals for the insane has had the effect to diminish the attention paid by medical men in general to insanity, as part of professional study, and limit it to those with whom it must be a specialty; consequently, when cases arise where the existence of this disease is in question, the natural and immediate resort is to those whose professional position affords them the peculiar opportunities for its investigation. We cannot complain that the plea of insanity in criminal cases has not received, in the courts of this State, its full degree of respect. The care with which prejudices have been

laid aside, and the patient attention given to the facts and opinions of science, in many such cases, are most creditable to the enlightened policy of our courts. When we remember that it is but a bare fifty years, since when, but a single week intervened between the death of the English Prime Minister, by the hands of a palpable lunatic, and the appearance of the latter upon the anatomist's dissecting table, we must grant that humanity has made an advance, in the element of deliberation, at least. If the light which study and experience are supposed to throw upon the question could be reached in some manner different from the present, a point would be gained where new lustre would reflect on the jurisprudence of the State. The latest important contributor to the legal literature of the country, while indulging in a tone most unjust to the class to whom he refers, well expresses the evils attending the present condition of those called to testify in cases involving the question of insanity. He says:

They are beginning to be regarded much in the light of hired advocates, and their testimony as nothing more than a studied argument in favor of the side for which they have been called. So uniformly has this proved true, in our limited experience, that it would excite scarcely less surprise to find an *expert*, called by one side, testifying in any particular in favor of the other side, than to find the counsel upon either side arguing against their clients and in favor of their antagonists.\*

A little reflection would have shown the learned author that the parties least censurable in this particular are those whose course is, by implication, called in question. They have no power to place themselves in an impartial attitude. They are partisans solely through a false position. They are summoned at the instance of one side only—interrogated only on points whitherward the interests of that side may tend—and cross-interrogated only where positions first taken may be deemed weak. What power, then, has the most conscientious *expert*, even if his experience is replete with facts of the utmost importance to the ends of justice, to lay before a court and jury just what is required and nothing more? This needless reproach upon a kind of testimony, which all experience proves is indispensable, might be removed by engraving upon the existing legislation, concerning this institution, a provision which would make the course of justice, in this respect, unmistakably pure. The author just quoted, has, in a spirit of returning candor, very clearly stated the

\* Redfield on the Law of Wills.

very remedy which those who suffer, in rendering testimony under the present state of things, have long desired :

There must be something fatally defective in our mode of obtaining and applying this class of testimony. For it cannot be supposed that, under proper regulations, there could be any difficulty in obtaining reliable scientific evidence, if the proper methods were resorted to. And it seems to us that some mode should be devised whereby the motive which is now offered to this class of witnesses to testify so exclusively for one side, should be not only counteracted, but that it should be entirely removed, and a contrary motive, for impartiality, presented. We mean no impeachment of this class of witnesses; but any man, when approached by the counsel of one party, and furnished only with the views and facts of one side, and asked to give his opinion, naturally gives a one-sided opinion. And, having committed himself to one side, he is thereafter rendered incapable of forming a fair and unbiased judgment, upon the facts of the case. He becomes disqualified to act as a juror in the case. And when it is considered that his testimony is given to instruct, educate, and inform the court and jury in regard to the proper mode of determining the case, and that it is no uncommon occurrence for a case to turn very much upon the scientific and professional testimony, it is no less important that the experts should be wholly uncommitted in opinion, than that the jurors should be so. It seems very obvious, therefore, that this class of witnesses should be selected by the court, and that this should be done wholly independent of any nomination, recommendation, or interference of the parties, as much so, to all intents, as are the jurors. To this end, therefore, should the compensation of scientific experts be fixed by statute, or by the court, and paid out of the public treasury, and either charged to the expense of the trial, or part of the costs of the cause, or not, as the Legislature should deem the wisest policy. The mere expense of the experts, when selected in this mode, would be as nothing in comparison with the expense which now becomes unavoidable, in consequence of the enormous consumption of time in most of the trials of this class.

The undersigned would respectfully urge, in view of the unquestionable propriety of this measure of reform, that the Legislature be requested to amend Sec. 16 of the Act of February 15, 1851, (which, in part, establishes the relation of the Superintendent of this institution to the courts of the State,) in the manner above indicated; or, else, to make complete the power, now in part existing, of being beyond the reach of any subpoena which would impress his services as an *expert*.

16. Dr. Van Nostrand, of the Wisconsin State Hospital for the Insane, reports the operations of the institution under his charge as follows: The number of patients remaining September 30, 1863, was 188. There

have been admitted during the year, 112. Total under treatment, 300. There have been discharged, 130; as recovered, 56; as improved, 21; as unimproved, 36; died, 17; leaving in hospital, 170.

Respecting these results, Dr. Van Nostrand observes:

A few of the people of this State have said to you in time past, and perhaps are saying the same thing at present, that the institution was hardly accomplishing what they expected of it; that it was not equal to the Utica or some other asylums that they have known in the East, which have been organized and ably conducted for a quarter or half a century. Now it is well understood by those who have spent their lives in the care of the insane, that the maximum per cent. of cures is not reached for some twenty or twenty-five years from the organization of a hospital, for the obvious reason that when it is first opened to the public, all the cases at that time in the State seek its benefits, without regard to the time which has elapsed since their occurrence or the cause of the disease. The institution is at once filled with cases of from a few months to twenty or more years standing, some epileptic, some idiotic, and some who have already passed through a thorough treatment in some other institution and been discharged incurable. With this unpromising class of patients all new State institutions commence their onward and toilsome career; they do not get freed from this incubus upon their prosperity in less than twenty years; therefore I feel that if the people were fully conversant with this matter, they would not expect so much of our new institution as from those of greater age. Their maximum of cures cannot be reached the first fifteen years, but their climax of usefulness, in relieving the misery and sufferings of this large class of the awfully unfortunate, may be reached in a much less time.

I feel that a conscientious Superintendent of a new institution may solace himself with the amount of suffering he is relieving, although his per cent. of cure is small; but that has not been the case with your hospital. The per cent. of recoveries in this hospital for the last year compares favorably with institutions of its kind in this country and in Europe. I find the average per cent. of recoveries in fifty-four insane institutions of the following nationalities: English, Scotch, Irish, German, Dutch and American, to be less than forty per cent. of the number of admissions per annum, while ours,

for the present year, is fifty per cent. I have also examined the reports of twenty old and excellent institutions of our own country, conducted by as much ability as any in the world. The average of the twenty is 43.05 per cent., while our own for the present year is, as before stated, fifty per cent. With this success in the fifth year of our efforts, I feel that Wisconsin can reasonably claim a consideration for ours among the prominent institutions of like character in this country.

17. From the Report of the Provincial Hospital for the Insane, Halifax, Nova Scotia, we gather the following: The number of patients, January 1, 1865, was 154. Admitted during the year, 46. Whole number under care, 200. Of the 50 discharged, 28 had recovered, 8 were improved, and 14 died.

It gives us pleasure to make the following record:

Through the liberality of the Legislature, a grant was passed at its last session enabling the government to add largely to the present building. Having in former years strongly advocated hospital extension, it affords your Superintendent great pleasure to be able to announce a satisfactory commencement of this important work. The centre building and two sections of the north wing are under contract. The excavation for the basement has been begun, and materials are being actively collected on the grounds for early construction on the opening of spring. The addition now being built will give room for ninety additional patients, besides affording more space for those already in hospital by vacating the apartments at present occupied by officers of the institution. The original plan is adhered to, except that a considerable portion in the rear of the centre building is omitted—the necessity for this portion being obviated by the present structure, in which the cooking, washing, baking, etc., are carried on. It is anticipated that the work now commenced will be completed in two years.

18. The statistics of the Indiana Hospital for the Insane for the year ending October 1, 1865, are thus expressed: Patients in hospital at the beginning of the year, 284. Admitted subsequently, 189. Total number

under treatment, 473. Discharged, recovered, 107; improved, 40; unimproved, 44; not insane, 1; died, 18; eloped, 1. Total discharged, 211. Remaining, 262.

Of the probable causes, in the 2,970 cases of insanity admitted to the hospital, Dr. Lockhart says :

It is evident that they were more generally such as weaken and exhaust the vital energies, as masturbation, nymphomania, gleet, leucorrhœa, menorrhagia, dyspepsia, over mental and physical taxation. Although the causes may be, and often are, the very opposite of exhaustion, yet I cannot conceive of insanity in any case without physical disease. Evidences of it may not be appreciable to our senses in the dead room, still they must have existed. Take a case of that numerous class of "domestic affliction," preceded by long-continued loss of sleep, as in angry excitement, or painful anxiety in which the brain is surcharged with blood, instead of being comparatively free from its presence, as in natural sleep. In such a case irritations of the brain and its coverings, with altered structure, must necessarily follow; just as long-continued engorgement of any of the organs of the body, must end in chronic irritations and impaired functions. Hence the inference, it is the structures through which the mind acts, that are diseased, and not the mind itself. In keeping with this view, the treatment of the body is of more importance than the treatment of the intellect, or the moral nature, although neither are to be lost sight of.

19. From the Report of the Bloomingdale Asylum, for 1865, we learn that 171 patients were in the institution on January 1, 1865, and that 152 have been admitted since, making the yearly total under treatment, 323. Of 152 discharged, 66 had recovered; 36 had improved; 22 were unimproved; and 28 died. Remaining December 31, 1865, 171.

Dr. Brown alludes to the gratifying success which has attended the operations of the asylum during the past year; he goes on to say :

For various reasons there is an increasing disposition among the prosperous classes to place their insane friends in this institution, and the efforts of its Governors to make suitable provision for such persons will probably prove as beneficial to the Asylum as to the patients.

The female department now offers accommodations which prove satisfactory to almost all who contemplate placing their afflicted relatives in our care. If the male division could be made correspondingly acceptable, the Institution would be about as complete as can be reasonably expected of any of its class. Unless some addition is made to this side of the house we will probably be unable to receive all applicants for admission.

There are, however, considerations affecting the question thus suggested, which makes its solution more difficult than might at first appear. Whether it be best to retain both sexes on these premises, enlarging the present building for the purpose, or to reserve both building and grounds as they now are for female patients alone, removing the men, at some future day, to a locality which will permit them more range for exercise without exposure to public gaze, is a question that merits the consideration of the Governors. The experience of the Pennsylvania Hospital for the Insane, in separating the sexes by devoting special buildings and grounds to each, will prove valuable in this connection.

20. The number of patients in the Iowa Hospital at the date of the last Report, December 1, 1863, was 216. Admitted to October 30, 1865, 269. Total number under care since last Report, 485. Discharged, recovered, 50; improved, 59; unimproved, 37; died, 55. Total discharged, 201. Remaining in hospital, November 1, 1865, 284. After some reflections upon the treatment of the insane previous to a half century ago, and the reforms introduced by St. Vincent de Paul and Pinel, Dr. Ranney observes :

The mystery in which disorders of the mind were shrouded, having been at length dispelled, much of the enlightened treatment of the present time began to prevail,—I mean, of course, in well regulated hospitals,—for the term “enlightened” is sadly inapplicable to the treatment which has prevailed in poor houses and private families.

The fact once established, that insanity is the result of a diseased brain, or diseased organism acting upon the brain, the way was clear for rational treatment, so that, at the present day, insanity is as intelligently and successfully treated as most other diseases. It is like other bodily diseases in this respect,—that the earlier treatment is adopted, the more successful will be the result. But, unlike other bodily diseases, it requires, for the highest success, removal of the patient from home and its associations, even isolation, in some cases most complete, perhaps for weeks and months. By removal to the hospital the double advantage is gained of conserving the influence of mind over matter by withdrawing the patient from the prolific sources of his disorder, and the substitution of new, pleasing, and healthier mental occupation for the vagaries of mental disorder. Under no other circumstances can the mind so successfully free itself from the tendency to unhealthy action. Here the numerous derangements of the physical functions—invariable accompaniments of insanity—can be most successfully treated, and repugnance to treatment, if it exists, best overcome. Here is afforded the first opportunity, perhaps, after the development of disorder, to exert a strong and healthy influence. Here the advantage which experience and intimate knowledge give the hospital director is of incalculable benefit. The patient finds in him, at least, a friend who understands and can farthest enter into his feelings, emotions, and beliefs, disordered though they be. Here, during the first remission of the disorder, can often be laid the foundation of recovery. Here he is removed from those toward whom his distrust and dislike, perhaps hatred, may be greatest. It is probable within the experience of every hospital director, that patients are friendly and confidential with him, while ready to indulge in indiscriminate abuse of their families and friends, who have sought only the best welfare of their unfortunate relatives. The insane may not only manifest aversion and dislike, but they may become dangerous. Indeed, delusion and unreasoning mental action are often, if not always dangerous. The catalogue of tragedies springing from such causes is extensive, and the experience of the officers of this institution attests the correctness of this view.

The care exercised over those who are suicidal is not the least of the benefits the hospital confers. In some hospitals this is a large class, and one which causes the greatest anxiety, and calls for unceas-

ing vigilance. That suicides will sometimes occur in hospitals and asylums, is shown by universal experience; but the proportion of fatal results to the number of cases treated is very small, while ultimate success in the management of this class of cases is proportionally great.

It is only reasonable to expect that, of the many patients brought to the hospital, there must be some who cannot be much benefited, and some who will be dissatisfied. This subject might be dwelt upon at length—but I will mention only one, and, as it seems to me, the chief reason of a want of success in any given case; and that is, unreasonable delay at the outset, arising, it may be, from distrust, or from a want of information—a delay during which the most hopeful period is wasted, and disorder is allowed to become chronic. This is especially true in the mental alienation arising from epilepsy. Of the forty cases now in the hospital, not one came under treatment until three or four years had elapsed from the period of the first attack, and all are probably incurable. As knowledge advances, it is hoped that the danger of such delays will be more clearly seen and understood. Action should be prompt when the first symptoms of mental disorder become apparent; and, with such exceptions and discrimination as have been indicated in previous reports of this hospital, immediate treatment is of the utmost importance, and its necessity cannot be too strongly urged.

*The Causation, Course, and Treatment of Insanity in Women: a Gynaecist's idea thereof; being the Report of the Standing Committee on Insanity for 1864-65.* By HORATIO ROBINSON STORER, M. D., of Boston, etc.

This paper is included in the Transactions of the American Medical Association, at its meeting in Boston, June, 1865. It covers 135 pages of that volume, being of more than twice the length of any other paper contained in it, one only excepted. We have not copied above all the titles which are attached to the name of its author. They describe fully, we believe, the places of honor and emolument which he fills. But Dr. Storer is well known as the son of one of the first physicians of

New England, and as a young man of great industry and enterprise in his profession. He is a specialist, not, it appears, as devoting himself to one class of diseases, but to one sex. Thus it is that the insanity of women becomes a part of his specialty. This distribution of the field of medicine, it will be seen, bisects all the old dividing lines, and threatens a radical change in the present order of things. The province of gynaecology being set off from general medicine, when that of andrology is created for the diseases of men, what will be left to us? From the gloomy prospect thus opened to psychologists not only, but to many other workers in special fields of medicine, we turn to notice the main points of Dr. Storer's paper.

At the meeting of the American Medical Association in 1854, it was resolved that a committee should be chosen annually thereafter, to report "upon the subject of insanity as it prevails in this country, including its causation, as hereditary transmission, educational influences physical and moral, social and political institutions, etc.; its forms and complications, curability, means of prevention, etc." Dr. Storer thinks it remarkable that during the eleven years which have elapsed no report covering this entire subject should have been made. It does not seem to us that such a report is called for. The Association could not expect or desire the full discussion of so extensive a matter every year, and we have no doubt that reports upon special topics embraced in it answer to the meaning of the resolution. None can regret more than ourselves, however, that so little has been done from any point of view. We agree with Dr. Storer, that "every specialist, no matter what his favorite study, whether insanity, ophthalmology, or the diseases of

women, owes his first duty to the profession at large, for it is through it that his observations or discoveries must really become effective."

Notwithstanding what he has said, Dr. Storer wisely does not himself endeavor to cover the whole ground of the resolution in his report. He proposes to attempt mainly "an elucidation of the true causation of mental disturbance in a large proportion of the cases in which it obtains in women, and of a more rational treatment than is generally adopted." Now we cannot but think that these two points were not happily chosen by one in the position of the writer. Upon the connection of insanity with uterine disease he might very likely be able to contribute some interesting facts and speculations. But concerning a "large proportion of the cases" of insanity in women, it was impossible to suppose that he had any special knowledge. And what could he know, practically, of the treatment "generally adopted" for them, beyond what the text-books on insanity furnish? Especially when, in addition to such a choice of theme, Dr. Storer had previously announced his belief "that in women mental disease is often, perhaps generally, dependent upon functional or organic disturbance of the reproductive system," we do not wonder that the experienced alienists associated with him on the committee were unwilling to join in his report. Drs. Bancroft and Worthington, in their communications, admit all that is probable, and more than can be demonstrated, respecting the part played by diseases of females in the causation of insanity. Dr. Van Deusen, in his reply to Dr. Storer, notices a very singular proposition, which it seems the latter had already made the subject of a paper read before the Association, and wished to embody in the

present report. This was, to recommend the appointment of specialists in the diseases of women as consulting physicians to hospitals for the insane! Taken with the expressed opinions of Dr. Storer, this proposal was, in effect, a charge of ignorance and inhumanity upon a body of respectable medical gentlemen. No grounds for so damaging an imputation were shown, and it is not strange that, to his associates of the committee, the morality of its author appeared to little better advantage than his modesty. Let him but change places with them but for a moment. Suppose that a prominent member of our specialty should ask the countenance of three or four leading gynaecologists in bringing before a body representing the entire profession of medicine a plan to appoint consulting physicians to all medical institutes, hotels, etc., where females are treated exclusively. And suppose, further, he should declare his opinion that the use of the speculum, in its effects upon the mind and morals of women, was the chief cause of insanity in that sex. Would there be any want of unanimity among the members of the Gynaecological Society in condemning such a movement, as insulting? No one, we are sure, would be more prompt or severe in expressing his indignation than Dr. Storer.

But, however unjust in fact Dr. Storer may have been, we will not believe him guilty of intentional injustice. He has had a very large experience of disease in women, and has observed the great degree in which nervous and mental manifestations are influenced by maladies peculiar to the sex. And it is in mental disturbance short of insanity, such as he has had, we suppose, most experience of, that the intimate connection of the uterine and nervous systems is most apparent. We

well know, too, how difficult it is to resist the tendency in every specialty to make the particular organ with which we have to do the most prominent and potential of the whole. As Dr. Storer looks at all diseases in women through the speculum, so some of our own brethren explain all the evil of the moral and intellectual systems on the theory of insanity. How very deceptive his view of the causation of insanity through such a medium is, may be easily shown. Under this term, it is understood, are not included cases of minor mental disturbance as in hysteria, or temporary delirium from toxæmia, as in fevers, etc. Insanity proper, then, in the great majority of instances, as well of women as of men, is now as clearly shown to depend upon a diathesis as tuberculosis and gout. In more than one-third of the cases, this diathesis is handed down from one generation to another, and to give it any local seat, whether in the womb, the stomach, or, as to its origin, in the brain even, is purely fanciful. But take the few cases in which insanity is connected with disease of the reproductive organs in women, and is not traceable to heredity or any other constitutional source. How can we say that the cerebral depends upon the uterine disorder, rather than the uterine upon the cerebral? They may have arisen and increased together, or, what is quite as likely, the one may have replaced the other. Is it not more rational, more in accordance with the analogy of disease in general, to suppose both to be the expression of some cause which pervades the entire organism? The notion, then, that sex is in reality an important predisposing cause of insanity in women, as Dr. Storer believes, seems to us wholly unfounded. We could just as easily prove phthisis in women to be chiefly due to sex as insanity.

It is often developed at puberty, and pregnancy and lactation are constantly observed to affect its progress. Disorder of the menstrual function is almost certain to attend upon it. Finally, certain symptoms, as cough, emaciation, and nervous disorder are common to both phthisis and uterine disease.

Whether uterine disorder is a principal exciting cause of insanity, it is not important to discuss in reference to Dr. Storer's plan of special treatment for insane women. The exciting cause of pneumonia may be a moment's exposure to cold; but the physician does not treat the chill. In fact, he does pretty much as medical alienists had learned to do in all cases of insanity where the essential and exciting causes are not the same, and clearly within reach. He moderates dangerous symptoms, and uses the proper means to prevent the exhaustion of his patient. Is it not true, too, that one of the chief tendencies of modern medicine is to leave local remedies in constitutional and self-limited diseases to the use of quacks? No one who is not a specialist of a single idea, or an acknowledged charlatan, now professes to cure tuberculosis by treating the attendant bronchitis, or cancer by healing the superficial ulcer. In our opinion, it is no less vain to expect to cure insanity in women by cauterizing or manipulating the uterus.

But we shall not further controvert the views of Dr. Storer, especially as they are neither based upon experience nor supported by reasoning. Although he declares them to be "in every respect important, and in some respects novel," his main source of proof is in quotations, which compose at least three-fourths of his paper, from the writings of Aræteus of Cappadocia and his successors down to the present time. Now so far as his views

are novel, of course they are not set forth by the authors whom he quotes. It is not impossible, to be sure, that the reader may find in this medley of contradictory, irrelevant and obsolete opinions, something which may serve as evidence of their importance. He will find, at any rate, sufficient cause for wonder that so much could be said and copied on a subject of such interest without bringing out a single original or valuable thought in the mind of the writer. His theory of the pelvic origin of insanity in women is new only in its being carried to the verge of absurdity. His advice to appoint consulting physicians from his own specialty for the insane hospitals of the country, is at least presumptuous. His belief in the practicability of directing greatly increased and special treatment to diseases of the womb in a hospital for the insane, is perhaps a natural consequence of his devotion to a single phase of medical science. But the reflection that he might possibly be in error in a matter of which he had no practical experience, should have prevented his announcing his opinions with a confidence which seems quite unbounded.

*A Treatise on the Principles and Practice of Medicine.* By AUSTIN FLINT, M. D., Professor of the Principles and Practice of Medicine in the Bellevue Hospital Medical College, and in the Long Island College Hospital, etc. Philadelphia: Henry C. Lea. 1866.

Especially in his aim to furnish a text-book for medical students, Dr. Flint has, in our opinion, achieved a decided success. The plan of his work, in the order and connection of the various subjects which compose it, is a model of systematic arrangement. It is also admirable in the due degree of importance accorded to each subject, and the impartiality of its treatment. The style is suffi-

ciently concise; but this is due rather to close and direct thinking than to a restrained use of language. Dr. Flint is, in fact, affluent in words, and prefers many-syllabled and technical ones. But he always uses the word which expresses the exact shade of meaning, is seldom redundant, and never repeats himself. His work is also commendable in what is omitted. While nothing properly within its scope is left out, there is yet nothing superfluous. No long cases are given, no tedious discussions are indulged in, and no notice is taken of obsolete opinions and doctrines. Medicine is conceived as a branch of science, to be taught in the stage of progress at which it has now arrived, and with the method in which scientific subjects are elsewhere presented. It has seemed to us that medical text-books should always be of this character. Certainly, if the knowledge given to the student is not systematized as it is acquired, there is little chance that it will ever be. Dr. Flint has also wisely shunned all rhetorical display, and makes no effort to excite any other interest in his subject than that which belongs to it as a matter of science. This characteristic we regard as of no small value. No doubt the idiomatic and colloquial style of Dr. Watson's lectures renders them more pleasant reading than Dr. Flint's book. They have the charm of a romance, and are besides an excellent mirror of the average medical opinion and practice of the day. Their author has even been termed "the Macauley of medicine." But these are scarcely reasons which should recommend his writings for the use of the medical student. The pages of the brilliant historian are but little resorted to, we suppose, for the study of the science of government.

There is, however, something more important than the style and formal treatment of his subject, in which, as a manual for the student, Dr. Flint's work excels that of Dr. Watson, and, so far as we know, all others of its class in the English language. We refer to the matter of the teaching itself. For the last forty years a change has been taking place in the opinions of medical men respecting the nature and treatment of disease, which has at length amounted to a revolution. This change may be represented, as to its doctrines, by the theory of inflammation taught by Bennett, Todd, Beale and others. The new modes of treatment, though by no means fully adopted in practice, are very generally approved, and are directly challenged by few. But a large proportion of the medical writers and teachers of to-day were educated in the old doctrines, and cannot give them up. Their practice is greatly changed, but their thinking and teaching are cast in the old forms. It is another illustration of the old story. The new patch is put on the old garment; the new wine fills the old bottles. Their general pathology does not harmonize with their special; their clinical and didactic teaching differ. The consequence is such as may be observed in all transition periods of doctrine. Medical scepticism becomes general, and prepares the way for a reäction into transcendental and superstitious systems. In this we have an explanation of the rise of homeopathy, spirit-medicine, etc. Now there can be no remedy for such a state of things until the theory and practice of medicine are brought to form a consistent body of teaching. In the work of Dr. Flint this is more perfectly done than in any other that has come to our notice, and it deserves the warmest welcome from all the advocates of rational medicine. We

hope, especially, that it may become the preferred text-book of every American Medical School. \*

*The Medical Record.*

This is a semi-monthly journal of medicine and surgery, published by William Wood and Company, of New York, and edited by Dr. George F. Shrady, the former associate editor of the *American Medical Times*. The *Record* bids fair to fill the void occasioned by the discontinuance of the *Times*, and to be a worthy exponent of the medical profession in New York. We desire to commend this ably conducted periodical to the readers of the *JOURNAL*, and especially to the members of the Association of Superintendents, of whose "Proceedings," in times past, Dr. Shrady was a faithful chronicler. Terms of subscription, \$4.00 per annum, in advance.

## SUMMARY.

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**APHEMIA OR APHASIA.**—Loss of the faculty of speech is commonly observed as dependent upon loss of voice, or aphonia. This may be due to inflammation or ulceration of the larynx, to the pressure of a tumor upon the recurrent laryngeal nerve, or to paralysis of the spinal accessory. The latter is a purely functional affection, occasionally met with among the phenomena of hysteria. There may be also a more or less complete loss of voice and speech from want of coördination of the several nervous acts which go to make up these functions.

The power of speech may be thus destroyed or impaired through defect in its physical apparatus. On the other hand, the same result may be due to abolition of the mental faculties, as in dementia. The loss may be total, or one or two single words, or even broken sentences may be uttered.

But within a few years cases of loss of speech have been observed, in which neither any affection of the vocal organs nor impairment of the intelligence was manifest. It is claimed that these cases, without exception, present some lesion of the anterior lobes of the brain. Nearly always, this lesion is found in the left frontal lobe, and connected with hemiplegia of the right side. The subject was first brought before the Anthropological Society of Paris, by Dr. Aubertin, in 1862. Since that time it has been the theme of a most extended discussion, the history of which is given in the

*Journal de Médecine Mentale*, for September and October of last year.

In respect to the name which should be given to the new disease, learned men have differed widely. But as these differences are mainly fanciful, or at least pedantic, we need not dwell upon them. At length the question has been narrowed down to a choice between the terms aphemia and aphasia. Of these the latter, which simply denotes the privation of speech, seems to be the general favorite. There is less controversy in regard to certain pathological and other facts. It is said that in nine cases out of ten of simple aphasia, there is found some lesion of one of the anterior lobes of the brain. In aphasia complicated with hemiplegia, this characteristic lesion is found added to that of the hemiplegia, also in nine cases out of ten. But the most striking fact is yet to be stated. While in seventy-five per cent. of cases of aphasia the posterior parts of the second and third frontal convolutions on the left side are more or less disorganized, in ninety-five per cent. of those complicated with hemiplegia the right side of the body is the one affected. So that if we have a patient with hemiplegia who speaks, his paralysis will be found almost invariably to be of the left side. It is not strange that so much effort has been made to find out the true relation of these remarkable facts. Their most obvious meaning points to the frontal lobe of the left hemisphere as the seat of the faculty of speech. But to assent to this is to give a partial support to the craniological theories of Gall and his followers, now almost universally rejected by physiologists. It is declared, then, by the opponents of those who would thus locate the faculty of language, that to confine it to one hemisphere of the

brain would be to ignore all the facts and analogies which point to the duality and symmetry of that organ. If the faculty is seated in one anterior lobe, it should have a corresponding place in its fellow on the opposite side. Again it is objected, that a few cases of aphasia have been observed in connection with hemiplegia of the left side. But a single exception, if perfectly authentic, is enough to discredit a theory like the one in question.

The greatest fallacy, however, of those who favor this notion of a local organ of language, seems to be in the assumption that they have a case of simple aphasia in every case of loss of speech coexisting with hemiplegia of the right side, and with lesion of the anterior lobe of the left cerebral hemisphere. Is not this a perfect instance of that universal error, the substitution of an hypothesis for something proved, the use of a word for a fact? For whether this aphasia, as defined, exists, is the very point in question. If the intelligence is not clear, on the one hand, or if the lesion is excentric, on the other, then there is no case of aphasia. We have all seen hemiplegic subjects deprived of intelligible speech, but it did not seem to be from a simple failure to remember words while the ideas corresponding to them were firmly and clearly held. On the contrary, the power of thought itself was evidently impaired. Now, just here centres all the practical importance of the discussion. Whether there is a special organ of language; what is the mode of connection between thought and speech, and in what part of the brain the one is transmuted into the other; how to separate between present intelligence and memory; on all these points it would be very gratifying to us to be fully enlightened. But in a case of loss of speech connected

with hemiplegia, or other central lesion, how to determine whether, or how far, the memory of words is alone at fault, or to what extent this is complicated with a vagueness of the patient's own ideas, and an inability fully to take in the meaning of others? This is the question which, on account of its important medico-legal bearings chiefly, we should be glad to have answered. The psychological problems, which have received so large a share of attention, are not less important indeed, but are certainly less hopeful of solution. Neither should a revival of the old quarrel about phrenological theories be permitted to divert from the true object of inquiry. If it finally appears that a post-mortem examination may be relied upon to clear up all doubts as to the "sound mind and memory" of a testator, no one will refuse the test merely because it tends to support the doctrines of Gall. We hope that further study will be directed solely to the tangible facts which have, properly enough, excited such an extraordinary interest.

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APHASIA.—In the *Edinburgh Medical Journal*, for March, is detailed an interesting case illustrating the supposed connection of aphasia (loss of the cerebral faculty of speech) with right hemiplegia, and lesion of the external left frontal convolution of the brain, by Dr. William R. Sanders. The author sums up the peculiar features of this affection as follows:

*First.* In the first place, the patient has, in a peculiar manner, lost the power of expressing himself by words. The loss may be complete, so that he emits no sound, or does nothing but mumble; or the loss may be partial. The partial forms are often extraordinary. Sometimes the patient can speak certain words quite distinctly, while he does not even attempt to say others quite as simple; sometimes

he can only say "yes" or "no," using them often without reference to their meaning; sometimes he has forgotten all his vocabulary except some familiar oath, or some short word of his own coining, which he utters automatically on all occasions. In other instances, the patient mutilates words in various ways, pronouncing half-words only, or giving words some uniform artificial ending; or, again, he misplaces words, using them in a wrong sense; or, lastly, he omits certain classes of words altogether; thus, some persons leave out the nouns, others the verbs from their sentences. Illustrations of all these forms are well known. It is evident that these different varieties require special study, but for the present purpose they may be all classed together as examples of aphasia, or speechlessness—the impairment, perversion, or loss of the cerebral faculty of speech or articulate language.

*Second.* The second peculiarity of the loss of speech now under consideration is, that it cannot be accounted for by defective intelligence, that is, by want of ideas to express. Nothing indeed is more evident than that the patient thinks, and that he is extremely anxious to communicate his thoughts. His face and eyes appear full of expression, and he makes eager efforts to convey his meaning, and, when he fails, he betrays his disappointment, according to the nature of his disposition, either by a good-natured smile and laugh, or else by frowns or tears. He frequently resorts to signs and gestures to assist him in his difficulty; and it is very remarkable that, in some cases, when the power of vocal speech is lost, the patient retains the ability to write distinctly what he wishes to communicate. In other cases, however, the power of written language is impaired or lost as well as vocal speech; and in the worst cases, even gestures and other imitative signs are wanting.

*Third.* The third characteristic of this kind of loss of speech is that it is not due to peripheral paralysis of the organs of vocalization or of articulation; for these organs are either entirely exempt from paralysis, or if some facial or lingual palsy be present as a complication, it is not sufficient to prevent, rarely even seriously to interfere with the articulate pronunciation of words.

The defect of speech, therefore, in the class of cases under consideration, is cerebral only. The patient has thoughts, and has voice and tongue and lips capable of uttering them; but some of the links in the process are missing; either that link by which the mind translates ideas into the corresponding conceptions of sound, called words,

or that link by which the brain converts the words conceived in the mind into the initiative impulse by which the apparatus of vocal speech is set in appropriate action.

Two kinds of aphasia have accordingly been distinguished. 1st. Amnesic aphasia, loss of speech depending on defective memory of words, and therefore to some extent a psychical defect; and, 2d. Ataxic aphasia, where the loss of speech is due to lesion of a supposed cerebral apparatus of coördination for the movements of articulate speech—a defect in the nervous mechanism only.\* These two kinds are chiefly distinguished by the circumstance that in the former (the amnesic aphasia) the patient has lost the ability to write as well as to speak; while in the latter (the ataxic aphasia,) he retains the power to write, but cannot articulate. The distinction is important clinically; but the theory of a distinct coördinating centre in the brain for articulate speech suggests anatomical and physiological questions which it would be out of place to discuss here, and the discussion of which is as yet probably premature. A cerebral organ of impulse is all that theory would require to account for ataxic aphasia.†

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TRAUMATIC INSANITY.—In the *Edinburgh Medical Journal*, for February, Dr. Skae describes a number of cases of Insanity caused by injuries to the head and by sunstroke. He believes the pathology to be the same in insanity resulting from injury or sunstroke, and to consist in chronic hyperæmia of the brain and its membranes. In some of the cases detailed insanity followed immediately upon the injury, while in the larger number months or years elapsed before its appearance. “In

\* Lesion of a special coördinating centre is M. Bouillaud's theory. M. Lordat, the distinguished Professor of Physiology in the University of Montpellier, who was himself, many years ago, the subject of aphasia (“alalia,” as he calls it,) ascribed the loss of articulation to the defective *synergy* (*i.e.* associated action) of the muscles which form the moveable apparatus of speech.

† I have not yet seen a case of aphasia without verbal amnesia, and without some impairment of the mental faculty of attention; and I should be disposed to regard some degree of amnesia as probably present in all cases of aphasia.

such cases," Dr. Skae remarks, "the connection between the injury and the insanity is generally indicated by the fact, that a slight change in the character, habits, or disposition is observed immediately after the injury—this change becoming more and more marked until it culminates in insanity." Dr. Skae concludes his paper as follows :

*First.* That traumatic insanity is generally characterized at its commencement by maniacal excitement, varying in intensity and duration.

*Second.* That the excitement is succeeded by a chronic condition, often lasting many years, during which the patient is *irritable, suspicious, and dangerous to others.*

*Third.* That in many such cases distinct homicidal impulse exists.

*Fourth.* That the characteristic delusions of this form of insanity are those of *pride, self-esteem, and suspicion*, melancholia being very rarely present.

*Fifth.* That this form of insanity is rarely recovered from, but has a tendency to pass into *dementia*, and to terminate fatally by brain disease.

*Sixth.* That the symptoms, progress, and termination of insanity, resulting from traumatic causes, are sufficiently distinctive and characteristic to entitle it to be considered a distinct form of insanity.

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**CLIMACTERIC INSANITY IN THE MALE.**—In a paper on this subject, by Dr. Francis Skae, in the September number of the *Edinburgh Medical Journal*, the following conclusions are given :

1. That there occurs in men between the ages of 48 and 60 a form of insanity, accompanied by more or less constitutional disturbances, which, in its symptoms, progress, and results, is identical with the insanity met with at the climacteric period in the female, and which may therefore with propriety be called climacteric insanity in the male.
2. That the symptoms of this form of insanity are so characteristic as to render it easily recognizable.

3. That this is the most curable form of insanity associated with melancholia which occurs in men, the recoveries being in the ratio of 56.7 per cent.
4. That the duration of the insanity in curable cases rarely exceeds four months.
5. That this form of insanity, apart from suicide or organic disease, rarely tends to a fatal termination.
6. That the most important indications of treatment are—early removal from associations and friends; careful watching; occupation, as especially out-of-door work; nutritious diet; and the judicious administration of narcotics.

**DEAF MUTISM.**—A meeting was held on Monday evening in the Hanover-square Rooms for an object of no less physiological than philanthropical interest. It was convened primarily to raise a sufficient sum of money to provide a chapel with class and lecture-rooms for the deaf and dumb of London; and secondly, to give a number of these unfortunates an evening of amusement—tea, dissolving views, and addresses in sign language. How perfectly possible it is to address a large assembly by sign language is proved by the feat performed by the Rev. S. Smith, the Secretary and Chaplain to the Association in Aid of the Deaf and Dumb, who, standing in front of the Chairman, Capt. the Hon. R. Grosvenor, managed to reproduce on his fingers the whole of the Chairman's tolerably long address, sentence by sentence, almost as rapidly as it was uttered. The whole history of deaf mutism involves a problem of great Medical interest. What is the defect in nervous structure which entails it? How often does it depend simply on absence or defect of the auditory nerve, or in what proportion does such a defect coexist with a radical deficiency in the whole nervous centre? A certain proportion of deaf mutes are imbecile, but a larger proportion, as the results of training show, are capable of an extraordinary progress in mental culture. Still, on watching the deaf mutes who crowded the Hanover-square Rooms on Monday, we were struck with the remarkable cranial conformation—often defective in size and development—the small forehead, and scanty lower jaw, which a large proportion of them exhibited. Probably low cranial development may be, in part, the result of the absence of one great channel by which ideas and materials for thought are obtained. But it is also, we have little doubt, a mark of general congenital cerebral deficiency, of which the deafness and dumbness

are only the most striking proofs. Still, there are not wanting instances of great intelligence and aptitude for acquirement amongst deaf mutes. Some of them have been admirable painters; others have learned to perform well the duties of ordinary business—they have been good accountants and handcraftsmen. The subject of the alleged location of the powers of speech and expression by words in a particular portion of the brain has lately attracted considerable notice in France. We believe that the location of speech in the anterior lobes of the cerebrum is an assumption which does not stand the test of pathological facts; but it is certainly true that the cranial development of a large proportion of deaf mutes is below the average—a circumstance closely connected both as cause and effect with the absence of speech and hearing.—*Medical Times and Gazette*.

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**OBITUARY.**—Since the last issue of the JOURNAL two men of great eminence in the domain of psychiatry have passed away—John Conolly, M. D., on the 5th of March, and Sir Alexander Morison, on the 14th of the same month. The following obituaries are from the London *Medical Times and Gazette*. The tribute to the memory of the illustrious Conolly is “from one whose pen is tinged with the affection produced by the closest ties:”

**JOHN CONOLLY, M. D.**—Early in the morning of Monday, March 5, there passed to his everlasting and long-desired rest, after a few hours illness, one whose name will always be identified with a great and noble work. John Conolly, to whose earnest convictions, faithful perseverance against all difficulties, and zealous labors, the modern humane treatment of the insane mainly owes its practical origin and its consummate triumph, is henceforth only a name in history. But if there is a good title to the gratitude of mankind in the alleviation of infinite human suffering—if there is a title to immortal fame in the faithful performance of a great and good work of reform, the memory of which must last as long as human sympathies endure, then his is a name which the world will not let die, and his a glory of which nothing ever can bereave him. He made the best part of a life having many vicissitudes a noble part of human progress: by his death individual ties and sympathies, virtues and foibles, all fall away, and the greatness of his life, standing more clearly out, becomes the concern, as it is the gain and honor, of mankind.

The late John Conolly, M. D., was born at Market Rasen, in Lincolnshire, his mother being of the name and family of the present Laureate. His father dying when he was only a few years old, he was early sent from home to school; and often and earnestly in after life did he revert to the dreary misery of that period, in which the semblance of learning was mechanically imparted by aid of frequent punishments. That he had obtained by stealthy purchase some volumes of the *Spectator* and a copy of the "Pilgrim's Progress" were gleams of bright reminiscence of that dark period; and he read and reread the essays of Addison with a delight to which he ever loved to recur, and which we may understand in one who wrote as elegantly and correctly as he always wrote. It may well be, indeed, that the influence of Addison's easy and graceful style contributed to the formation of his own correct taste in composition; for to the last, scarce anything more offended his refined sensibility than coarseness and slovenliness in the expression and structure of a sentence.

Soon after leaving school, and when not yet eighteen years of age, he entered a Militia Regiment as ensign, and was stationed at different places both in Scotland and Ireland. The life of thoughtless pleasure and reckless excitement, common at that time amongst the officers of a regiment, could not fail to be for a time attractive to a young ensign of lively and impulsive temperament, with a passionate love of genial social intercourse; but it marks the superiority of his mental culture, as well as the skill of the pen which has often pleased and instructed the readers of this journal, that other officers used commonly to have recourse to his help to compose their important letters. Not long after leaving the regiment, and when only 22 years of age, he married, and went with his wife to France, where in a beautiful cottage near Tours, afterwards occupied by the poet Béranger, he passed in unheeding enjoyment the happiest year of his life. But at the end of a year, and when a child had been born, it became necessary to think seriously of adopting some profession or other regular means of livelihood. After consulting friends, one of whom was the amiable Dr., now Sir Arnold Knight, he resolved to commence the study of Medicine at Edinburgh. Leaving, then, behind him, with natural reluctance, his beautiful cottage and the unmixed poetry of life, he set forth with his wife and child to Edinburgh, and began in earnest the work of a Medical student. It was a great and dreary change, but its weight was lightened by the friendly hospitality of many of the illustrious men who at that time

adorned the northern capital, and who were attracted to the student by the amiable disposition, courteous manners, and refined culture which distinguished him through life.

On graduating as a Doctor the subject of his thesis was "Insanity;" his attention being thus early occupied with the subject which was to be the field of his future labors and triumph. It will be erroneous, however, to suppose that he then foresaw the future scope of his work, or that he had any definite aim which he proposed to himself to work for. No man who has done anything great in the world of practical activity ever had such predetermined aim, though he might think so afterwards; there is much blind struggling, amidst shifting uncertainties and untoward circumstances, before the appointed man and his work come together; and it is that which lies deep in his nature, that which is beneath will and beneath consciousness, and of which he can give no account; that unconsciously impels him on his course, and inspires him with the faith necessary to success.

On leaving Edinburgh, Dr. Conolly first went to Lewes, with the object of there settling in practice, but moved after three months to Chichester, where, about the same time, the late Sir John Forbes established himself. Their short rivalry was the foundation of a lasting friendship, and they were afterwards associated together as joint editors of the *British and Foreign Medical Review*, and with Dr. Tweedie in the production of the *Library of Medicine*. But Chichester was not equal to the support of two Physicians, and Dr. Conolly, after residing there a year, removed to Stratford-on-Avon, where he practised successfully for several years, and accomplished much literary work. Here, too, he enjoyed the friendship of the great Whig scholar and champion, Dr. Parr, the severest of schoolmasters, but the most kind-hearted of men. Leaving Stratford-on-Avon to assume the Professorship of the Principles and Practice of Medicine at University College, London, he established himself at Gloucester-place, and was during the time of his residence in London one of the most active members of the "Society for the Diffusion of Useful Knowledge." But as practice did not come sufficiently quickly, and as divisions existed in the councils of the college, and bickerings and heart-burnings within its walls, while no Hospital had been built, he resigned his appointment, after holding it for three years, and returning to the neighborhood of Stratford, settled at Warwick. It was after he had been there six years that the office of Resident Physician to the Hanwell Asylum became vacant, and that he applied for the

appointment; being defeated only by the casting vote in favor of Dr. Millingen. But a year afterwards the office was again vacant, and his second application was happily successful. And now at last, after many wanderings and much suffering, he had found the true sphere of his labors? he was appointed Resident Physician in June, 1839, and in September of that year every form of mechanical restraint had been banished from the Asylum. It was some time before the non-restraint system was generally accepted as practicable; much opposition had to be encountered and overcome; but the experiment made on so large a scale in an institution containing nearly a thousand patients, suffering from every variety of insanity, proved beyond all question not only the entire practicability, but the great benefit of the human system of treatment. The complete record of its progress is contained in the admirable Reports of the Hanwell Asylum from 1839 to 1844. In the latter year Dr. Conolly resigned his appointment at the Asylum, but continued to devote his energies to the promotion of every good scheme having for its object the improvement of the condition of the insane. In conjunction with the late Dr. Reed, he was an active promoter and the constant supporter of the Idiot Asylum at Earlswood; and his warmest desires were fixed on the establishment of long and sorely needed public asylums for the poor insane of the middle classes.

Though it may justly be thought, perhaps, that one who did so much for the world was not adequately rewarded by it, when others who have not deserved so well have received great rewards, his services were not entirely unrecognized. A magnificent testimonial, consisting of a massive silver group of allegorical figures, together with his portrait, was presented to him in 1852 by public subscription; and in the same year the University of Oxford conferred upon him the degree of D. C. L. But his highest testimonial is the noble work which he has accomplished, and his highest honor will be in the grateful recognition of foreign lands and of future ages.

Of his literary works we cannot speak at length now. They are well known both in this and other countries; his book on the "Construction and Management of Lunatic Asylums" is a standard work of authority, and his little work on "Hamlet," published two years ago, is one of the most graceful, learned, and philosophical essays that he has ever proceeded from any pen. His extremely polished style, the careful construction of his sentences, the elegance and precision of his language, make whatever he wrote most interesting to read.

During the last few years of his life he had, in consequence of failing health, gradually retired from active practice; and daily occupied in the study of classical authors, English and Latin, he awaited with equanimity the great change. He had so lived that when the summons came he could meet it, not in fear and trembling; but, sustained by the consciousness of a good work well done, he willingly approached his grave as one who, the long day's task's over, "wraps the drapery of his couch about him, and lies down to pleasant dreams." His end was sudden, as he had ever prayed that it might be; and his intellect was perfectly unclouded until close upon the fatal termination, as he hoped with an exceeding earnest hope that God would grant it might be. A sudden attack of hemiplegia was followed by severe unilateral convulsions, and in a little more than two hours he entered on his everlasting rest. He was 71 years of age.

"After life's fitful fever he sleeps well."

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THE LATE SIR ALEXANDER MORISON.—But a few days have intervened between the death of Dr. Conolly and the death of Sir Alexander Morison, two names preëminently distinguished in the annals of improvement in the treatment of the insane in this country. Sir Alexander Morison was the older man, having attained at the time of his death, on the 14th current, an age only six weeks short of eighty-seven years. Dr. Conolly was fifteen years younger.

Sir Alexander Morison was born at Anchorfield, near Edinburgh, on May 1, 1779. At the High School of Edinburgh he was in the same class with Lord Brougham. In 1798 he took the diploma of surgeon, and in the following year he obtained the degree of Doctor in Medicine from the University of Edinburgh. After a year's probation as a Licentiate he was elected a Fellow of the Royal College of Physicians of Edinburgh in 1801. In 1808 he became a Licentiate of the Royal College of Physicians of London, but not till 1841 did he obtain the rank of Fellow of that College. In 1809 he was appointed Medical Superintendent of a private asylum for the insane in the county of Surrey. About the year 1816 he delivered a course of lectures in Edinburgh on mental diseases, to the excellence of which some surviving members of the Medical Profession can still testify.

In 1816 he was appointed Physician-in-Ordinary to her Royal Highness the Princess Charlotte of Wales, and after her marriage he

obtained the like honorable office from her husband, Prince Leopold, the late King of the Belgians, who was further graciously pleased to stand godfather to his infant son. He also held the appointment of Physician to the Duke of York.

In 1827 he was elected President of the Royal College of Physicians of Edinburgh, which office he held for the usual period of two years.

In 1832 he was appointed Consulting Physician to the Middlesex Asylum, at Hanwell, and Visiting Physician to the Surrey County Asylum. In 1833 he gave his first course of lectures on mental diseases in London, which course was continued annually for a number of years. In 1835 he was appointed Physician to the Royal Hospitals of Bethlehem and Bridewell, and Consulting Physician to several other asylums for the insane in different parts of England, and in these he labored assiduously to promote the comfort of the insane poor.

In 1838, soon after the accession of her present Majesty, he received the honor of knighthood.

After his retirement from the office of Physician to Bethlehem Hospital, he lived chiefly near Balerno, in the parish of Currie, visiting England occasionally in the performance of his duty as Consulting Physician to the Surrey and other asylums. This he did till within the last few years, when the effects of a severe illness rendered it more prudent to remain nearer home. Notwithstanding his great age, he retained his faculties to the last moment of his life.

Sir Alexander's works are numerous, the most remarkable of which is "The Physiognomy of Mental Diseases"—a very valuable book, in which, along with descriptions of the various forms of deprivation of mind, are illustrative portraits from drawings by eminent artists taken from patients in the several institutions with which he was connected.

In 1864 he instituted an annual course of six lectures on mental diseases, under the direction of the Royal College of Physicians of Edinburgh, the first course of which was given in Physicians' Hall last summer, by Dr. Seller, appointed by him the first lecturer. He has also established an annual prize to the best recommended male and female attendant in the British asylums for the insane.

Sir Alexander was twice married. His sons have all died before him. He has left a widow, several daughters, and numerous grandchildren, to lament. He is buried in the churchyard of Currie.

MEETING OF SUPERINTENDENTS.—The Twentieth Annual Meeting of the Association of Medical Superintendents of American Institutions for the Insane, will be held at Willard's Hotel, in the city of Washington, April 24th, 1866.

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NOTICE.—Messrs. Hurd & Houghton announce that they have in press and will soon publish "Shakspeare's Delineations of Insanity, Imbecility and Suicide," by A. O. Kellogg, M. D., Assistant Physician at the State Lunatic Asylum, Utica, N. Y. The volume consists of essays which have appeared from time to time in this JOURNAL, and have been read with interest by the lovers of Shakspearian literature, who will be pleased to see them preserved in a more convenient form than that afforded by the pages of a medical periodical.